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AN ESSAY

ON THE CULTURE AND MANAGEMENT OF TOBACCO,

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In the preparation of this Essay, the author admits frankly that he has availed himself of the experience of many successful Planters, whose practice and example he had endeavored for years to follow; and he has also availed himself of much of the matter in his former Essays on this subject, having seen since they were written, nothing to change his views therein expressed in regard to the culture of this great staple of Maryland. And he would state merely by way of giving force and character to his suggestions, that it is well known in the community in which he lives, that from his boyhood he has been familiar with the growing and general management of Tobacco; and for fifteen years past has himself extensively cultivated it. With these preliminary remarks he will endeavor to give a plain, succinct and intelligible account of that culture and management of Tobacco which he deems the best system for planters to pursue, keeping in view successively the points desired to be touched upon, as set forth in the terms of the liberal offer of Mr. Jose Joachim DeArietta, in the American Farmer for Sept. 1853.

1st. and 2nd.—How to raise the best seed.—What, if any, preparation is it to be subjected to?

The earliest and largest plants should be selected for seed. One hundred plants will give over a peck of seed. Twice as many should be turned out as may be needed, so that after they are in full flower or bloom, the best plants of the whole may be chosen and the rest broken off. If the grower wishes to raise fine, light, yellow tobacco, he ought to select plants that grow quick, with leaves small stemmed and far apart in the stalk, such as the "*Pear Tree*" Tobacco. If he wishes to raise heavy crops to the acre and most of it curing a fine red, he should select such plants as are broad and long leaved, set close together on the stalk with large stems and thick leaf, such as the "*Wilson*" or the "*Broad-leaf Thick-set*," or like kinds. These tobaccoes, if ripe, will cure a pretty red and salmon-color, and in the *sample* will be like kid, pliant and glossy, smooth and soft to the touch, if properly managed. After the seed pods have fully developed themselves it should be *pruned*, and then when the pods have turned brown and begin to open, each head should be cut off and hung up to dry under cover until it can be rubbed out; then pass it through a fine sieve so as to get the seed clean, and it requires no further preparation. The seed should be kept perfectly dry. By *pruning*, is meant the lopping off all the small, defective or indifferent pods that are found on the head, leaving only a sufficient number of well formed, large pods to mature, so that the whole strength of the plant may be concentrated in perfecting them alone.

3d. and 4th.—*The nursery and the best way to insure its existence.*

A rich loam is the soil for Tobacco plants. The spot selected for a bed, should be the south-side of a gentle elevation as well protected as possible by woods or shrubbery—a warm spot—mellow ground, perfectly pulverized. After it has been thoroughly burned with bush, dig deep, and continue to dig, rake and chop until every clod, root and stone be removed, then level and pulverize nicely with the rake. When about half prepared, sow over it Guano, at the rate of 600 lbs. to the acre, or *fine* ground bones at the rate of twenty bushels per acre, or half the quantity mixed with well rotted stable manure. By the after preparation this becomes well intermixed with the soil. Mix one gill of seed for every ten yards square, with a gallon of dry plaster or dry sifted ashes, to every half pint of seed, and sow it regularly, in the same manner that gardeners sow small seeds, only with a heavier hand. Roll with a hand roller or tramp it with the feet. If the bed be sown early in the season, it ought to be covered with leafless bush, but it is not necessary to cover them after the middle of March, in this climate. Tobacco beds may be sown at any time during winter if the ground be not frozen or too wet. It is safest to sow at intervals, whenever the land is in good order for working—never sow unless the land be in good order, for the work will be thrown away, if the land be

too moist, or be not perfectly prepared. The beds must be kept free from grass and weeds, until they are no longer needed, and the grass must be picked out a sprig at a time by the fingers. It is a tedious operation, therefore planters should be very careful not to use any manures on their beds which have grass seeds or weeds in them. After the plants are up, they should receive a top-dressing once every week or ten days, of manure sown broadcast by the hand; this should be a compost composed in the following proportions:

½ bushel of unleached ashes,
1 bushel of fresh virgin wood's earth,
4 lbs. of pulverized sulphur,
½ gallon of plaster,
1 quart of salt dissolved in two gallons of liquid manure from the barn-yard—the whole well intermixed. Let a large quantity be prepared in the autumn previous, and put up in barrels, out of the weather, for use when wanted. If possible the plants should stand in the bed from half an inch to one inch apart, and if they are too thick, they may be thinned while *picking* the grass out, or they may be raked out, when they have become generally the size of a five or ten cent piece. The *rake* proper for the purpose should be a small common rake, with iron teeth, very sharp, curved at the points, and three inches long; teeth flat, and three eighths of an inch wide, and set half an inch apart. The plants that are pulled out by the rake must be taken off the bed, or they will take root again.

5th. and 6th.—*Method of transplanting.—Preparation of the soil—description of Implements, &c.*

The soil best adapted to the growth of Tobacco is a light friable soil, or what is commonly called a sandy loam, not too flat, but rolling, undulating land—not liable to drown in excessive rains. New land is far better than old.

The land intended for Tobacco should be well ploughed early in the spring, taking care to turn the turf completely under, and subsoiling any portion that may be very stiff, or likely to hold water near the surface, and let the land be well harrowed soon after the breaking it up; it should then be kept clean, light and well pulverized, by occasional working with cultivators and large harrows, so as not to disturb the turf beneath the surface. When the plants are of good size for transplanting, and the ground in good order for their reception, the land or so much as can be planted in a "*season*," (*that is, while wet*) should be "*scraped*," which is done by running parallel furrows with a small seeding plow, (the Prouty and Mears' No. 2½ for instance,) two and a half or three feet apart, then crossing these again at right angles, preserving the same distance, which leaves the ground divided in checks or squares of two and a half or three feet each. The hoes are then put to work and the hill is formed by drawing the two front angles of the square into the hollow or middle, and then smoothed off on top so as to form a broad flat hill about six inches high, then patted with one blow of the hoe to compress the centre of the hill, and cause a slight depression so as to collect the water about the plant. The first fine rain thereafter, the plants should be removed from the seed beds, and one carefully planted in each hill. A brisk man can plant 10,000 plants per day. The smaller or weaker hands, with baskets filled with plants, precede the planters and drop the plants on the hills.

In drawing the plants from the bed, and in carrying them to the ground, great care ought to be taken not to bruise or mash them. They should be put in baskets or barrels, if hauled in carts, so that not many will be in a heap together. The plants should never be planted deeper than when they stood in the bed. Planting is performed by taking the plant dropt on the hill, with the left hand, while the root is straitened with the right, and one finger of the right hand makes a hole in the centre of the hill, and the root of the plant inserted with the left hand; the dirt is well closed about the roots by pressing the forefinger and thumb of the right hand on each side of the plant, taking care to close the earth well about the bottom of the roots. If sticks be used to plant with, they should be short, and the planter particular not to make the holes too deep. The plants should be very carefully planted, for if the roots be put in bent up, or crooked, the plant may live, but will never flourish, and perhaps when too late to *replant*, it will die, and then all the labor will have been of no avail. In three or four days it may be wed out, that is, the hoes are passed near the plants, and the hard crust formed on the hills pulled away, and the edges of the hills pulled down in the furrows; this is easily done if performed soon after the planting, but if delayed, and the ground gets grassy it will be found to be a very troublesome operation. After the weeding out, put a table-spoonful of plaster of Paris, (or a gill of Plaster and ashes unleached, well mixed together would be preferable) upon each hill. In a few days—say a week or less time, run a small plow through it, going twice in a row. This is a delicate operation, and requires a steady horse and a skilful ploughman, for without great care the plants will be knocked up or be killed by the working. The bar of the plow should be run next to the planter. In a week after, the "*Tobacco Cultivator*," or *single shovel*, must be used. These implements are well made by R. Sinclair, Jr. & Co. and other Agricultural Implement makers of Baltimore. Either implement is valuable at this stage of the crop. Once in a row is often enough for the shovel or cultivator to pass. The crop can now be made with their use, by working the tobacco once a week or ten days, for four or five weeks, going each time across the former working. Any grass growing near the plants should be pulled out by hand. As soon as the tobacco has become too large to work without injuring the leaves by the swingle-tree, the hand hoes should pass through it, drawing earth to the plants where required, and level ridges caused by the cultivator or shovel. Let this hoeing be well done, and the crop wants no more working. Care should be taken to leave the land as level as possible, for level culture is generally best. As soon as it blossoms, or the buds are fairly out, and the seed plants selected, all the rest should be "*topt*" as soon as the blossom is fairly formed. Do not wait for it to bloom, for the horn-blowers will be attracted by the flowers. It should be *topt* down to the leaves that are six inches long, if early in the season, but if late, top still lower. If the season be favorable, in two weeks after a plant has been topt, it will be fit for "*cutting*," yet it will not suffer by standing longer in the fields. From this stage of the crop until it is in the house, it is a source of great solicitude to the Planter. He is fearful of storms, frost, and *worms*, his worst enemy—they now come in crowds. The "*suckers*" are to be pulled off and "*ground-leaves*" saved. The "*suckers*" ought to be pulled off as soon as they get two or three inches long; they spring out

abundantly from each leaf where it is set on the stalk. "*Ground-leaves*" are those leaves at the bottom of the plant which become dry on the stalk, and ought to be gathered early in the morning when they will not crumble.

When it is ripe enough for the house, it is cut off close to the ground by turning up the bottom leaves and striking with a sharp tobacco knife, formed of an old scythe—such as are used for cutting corn, or some persons have knives made, like butchers' cleavers. Let it lay on the ground for a short time to "*fall*" or wilt, and then pick it up in shoulder turns, and carry it to the tobacco house, when it may be put away in three different modes, by "*pegging*," "*spearing*," and by "*splitting*." "*Peging*" Tobacco is the neatest and best mode, yet the slowest. It is done by driving little pegs, about six inches long, and half an inch or less square, into the stalk, and these pegs are driven in with a small mallet in a slanting direction, so as to hook on the sticks in the house. It is then put on a "*horse*," which by a rope fixed to one corner, is pulled up in the house by hand, or by block and teakle, and then hung on the sticks, which are regulated to proper distances. A "*tobacco horse*" is nothing more than three small sticks nailed together so as to form a triangle, each side being three or four feet long. *Spearing* is the plan I pursue, because it is the quickest plan. A rough block with a hole morticed in it, and a fork inserted a few inches from the hole, for the tobacco stick to rest upon, one end being in the hole, with a spear on the other end of the stick, is all the apparatus required. The plant is then with both hands run over the spear, and thus strung upon the stick—which when full is taken to the house and hung up at once. There are round spears, and dart-spears, like in form to the Indian arrow heads,—hollow of course to admit the sharpened end of the stick.

"*Splitting*" tobacco is admired by many who contend that it makes it cure quicker and brighter, certainly quicker, and less likely to *house burn*, or injure from too thick hanging. The mode is easily pursued by simply splitting the stalk standing in the field, with a knife made for the purpose. The stalk is split from the top to a few inches of the bottom, some days before cutting the tobacco for housing—care should be taken not to break the leaves while splitting. The knife may be fully described by saying it is a miniature spade. It can be easily made, inserting a part of an old scythe blade in a cleft oak handle, with its edges bevelled off to the blade, so that it will act as a wedge to the descending knife. After it has been split, cut down and carried to the house, it is straddled on the sticks, which are placed in forks for greater convenience in stringing it on the sticks—and is then hung up in the house—*Tobacco sticks*, are small round sticks, or are split out like laths, one or one and a half inches square, usually larger at one end than the other, and ought to be eight or ten inches longer than the joists of the tobacco house are wide apart.

If the tobacco is of good size, six or seven plants are enough on a four foot stick. When first hung up, the sticks should be a foot or fifteen inches apart. As the tobacco cures they may be pushed up closer. After the house is filled and has yellowed, some planters put large fires under it, which dries it at once, increasing its brightness somewhat, but "firing" imparts a smoke-smell and taste which is objectionable to buyers. The better plan is to have sufficient house-room, and hang it thin in houses not too large, which have windows and doors so as to admit light and dry air, and by closing them in bad weather, exclude hard winds, and the dampness, by which it is materially injured in color and otherwise damaged. After becoming well cured, the stem of the leaf being free from sap, the first mild damp spell of weather, it will become pliant and then may be stript off the stalk. It is first pulled or taken off the sticks and laid in piles, then the leaves are stript off and tied in bundles, of about one fifth or one sixth of a pound each. The bundle is formed by wrapping a leaf around the head or upper part of the handful of leaves, for about four inches, and tucking the end of the leaf in the middle of the bundle by way of confining it. There ought, if the quality of the crop will permit, be four sorts of tobacco, "*yellow*," "*bright*," "*dull*" and "*second*." When the tobacco is taken down the "*cullers*" take each plant and pull off the defective, trashy, ground and worm eaten leaves that are next to the big or butt end of the stalk, and then throw the plant to the next person, who strips off all the *bright* leaves (and if there be any yellow leaves, he pulls them off, and lays them aside, until he collects enough to make a bundle) and throws the plant to the next, who takes off all the rest, being the "*dull*," and the respective strippers as they get leaves enough in hand, tie up the bundles and throw them in seperate piles for convenience in bulking. The cullers strip nothing but "*seconds*;" stripping should never be done in drying or harsh weather, unless the tobacco is bulked up almost as fast as it is stripped. The better plan is to take down no more than you can tie up in a few hours. If the planter chooses, he can take down a large quantity and put it in bulk, stalks and all, cover it with tobacco sticks, and it will keep for several days, so that no matter how the weather may be, he can strip out of bulk. However, this is a bad, wasteful way. Tobacco should not be moist or "*high*" as it is termed, when put in the stalk-bulk, for it will get warm, the leaves stick to the stalk, get a bad smell and change color, beside if left too long it will rot. It requires judgment and neatness to bulk tobacco. Two logs should be laid parallel to each other, about thirty inches apart, and the space between them filled with sticks for the purpose of keeping the tobacco free from dampness of the ground. The bundles are then taken one at a time, spread out and smoothed down, which is most conveniently done by putting it against the breast, and stroking the leaves downward smooth, and straight with the right hand. It is then passed, two bundles at a time, to the man bulking. He takes them, lays them down and presses them with his hands; they are laid two at a time in a straight line—the broad part of the bundles slightly projecting over the next two, and two rows of bundles are put in a "*bulk*," both rows carried on together, the heads being on the outside, and the tails just lapping one over the other in regular succession. The bulk when carried up to a convenient height, should have a few sticks laid on the top to keep it in place. It must often be examined, and if getting warm, it ought to be immediately changed and laid down in another bulk of less height, and not pressed as it is laid down: this is called "*wind-rowing*;" being loose and open it admits the air between the rows of bundles, hence the term. The next process is to condition it for "*packing*." The *bright* yel-

low and *second* tobacco will "*condition*" generally best in such bulks as I have described, but the "dull" ought to be hung up, by standing the bundles on sticks, before it is put in bulk, as soon, in fact, as it is stript. If the *bright* or *seconds* do not dry thoroughly in the bulks, that also should be hung up to become completely dry. Properly to hang up tobacco to condition, small sized sticks should be procured and each one made very smooth, and kept expressly for that purpose. After it has once been perfectly dry—so dry that the heads are easily knocked off, and the *shoulders* of the bundles upon being pressed crack like pipe-stems, it should be taken down, or if in bulk, removed, the first soft spell of weather, as soon as it is soft and yielding enough, as it will become, to handle without crumbling or breaking, and it must be put in four, six or eight rowed bulks of any convenient length and height—the higher the better,—laid down close, so that as little of the leaf or shoulders as possible shall be exposed on the outside of the bulks. When completed, put sticks evenly over it, and then pile up logs of wood on the sticks, so as to heavily weigh it down. Here it will keep sweet and in nice order for packing at any time, no matter how the weather may be, if it was conditioned properly, will not change a particle while in the condition bulk. Mild, soft pleasant weather is the best to pack tobacco in. The best tobacco prize is one known as "Page's Prize," much improved by F. Grieb, of Upper Marlbro', Prince George's Co., Md. It is cheap, expeditious in its working, being easily taken down and put up, may with convenience be moved from house to house.

As to the size of the hogshead, the best size is the ultimatum of the law of Md., fifty two inches long and forty inches in the head. Almost any wood will answer to saw into hogshead stuff, the best of course, is that which is strong, but weighs light, as gum or poplar. No hogshead ought to weigh over 100 lbs., and staves drawn from oak, make the best, though they are too costly.

It ought to have been observed, that while putting the tobacco in *condition* bulk, all bundles that were soft or had a bad smell, should have been laid aside to be rendered afterwards sweet and dry by a few hours exposure to the sun. This precaution must be observed in packing. In putting the tobacco in the hogshead, he who packs, takes off his shoes and gets inside the hogshead, and has an assistant to hand him the tobacco. He lays one bundle at a time, in a circle, heads outward, beginning in the centre, and each circle is extended until the outer circle touches the staves of the hogshead; a single row of bundles is then laid all around the edge, on the heads of the outer circle, then across the hogshead in parallel rows, the middle being always raised a little higher than the outer edge. This is called a "*course*," and these *courses* are continued until the hogshead be filled. The packer presses with his knees each bundle as he lays it down, and often stands on his feet and presses heavily, but cautiously all round, and across, so as get in as much as possible. One receiving hogshead, and two false hogsheads, five feet long, making fourteen feet four inches of tobacco, will weigh from nine hundred to one thousand pounds, if in good order, and well hand-packed. This concludes the almost ceaseless round of labor, necessary to prepare for market this important staple of our country.

7th. What kind of manure the best?

Ashes at the rate of 100 bushels per acre, sown broad-cast just when the land is harrowed the second time, is unquestionably the best manure for Tobacco. Experience fully proves this fact.

8th. Mode of applying it—and the consequences of its application as compared with soil not manured. It has just been stated how it is best to be applied, and its effects are so striking that there is no comparison between the land that is ashed, and the soil not dressed with ashes. New land for two crops however, would have the crop but slightly improved by ashes, if it was naturally fertile and newly cleared up.

9th. and 10th.—Different manures, such as Guano, Bone-dust, &c., compared with one another, with regard to Tobacco, and their influence on the vegetation of the plants, and on the insects which attack it.

Guano acts well on tobacco on most soils, but is of no use on rich tobacco soils—it is an useless expense. On very poor, stiff or light sandy soils, it is exceedingly valuable, and will well repay the outlay. When used in the seed bed, it causes the plants to grow quickly, and in a wet season would soon force the plants beyond the harm of the fly. It certainly, too, if mixed with wood's-earth, or rich dirt, and sown broad-cast over the young plants, would aid by forcing the plants and by its odor and other qualities, in keeping off to a great extent the fly. Bone-dust is too slow in its action to help the tobacco crop much. *Potash* is a most active and powerful fertilizer for this crop. 100 lbs. of plaster of Paris, and 200 pounds of Potash well intermixed, or ground together, and applied to the acre just before the hills are stuck up, has been found to materially benefit the tobacco crop. The result of this application, has been found to surprise the most dubious and unbelieving. It is an admirable dressing for tobacco land.

Wooden charcoal applied thickly as a top-dressing to the plants in the bed, while moist with dew, is valuable, because the black surface would attract the rays of the sun, and cause by the increased heat, a greater growth of the plants, and it has been found effective in arresting the ravages of the fly.

11th.—Best, cheapest and most effectual way either to destroy those insects, if they should make their appearance, or to avoid their appearing altogether. The insects that molest the tobacco plants, are the Turnip fly, the tobacco fly, and the grub and tobacco worm. The tobacco fly is much smaller than the turnip fly, and of a lighter color. They both attack the plant in its tender state, and often destroy millions of plants. The only remedies that past experience has ever found of any avail, have been such as have already been pointed out. They do not trouble beds that are covered up with brush, but brush can only be allowed a certain time upon the beds, and when it is removed, the plants should receive very frequent dustings of very finely pulverized manure, or even sand, especially when the weather is cool, and dry with harsh winds. It is in such weather the fly delights to do its work of destruction. The *grub* is a small short brown worm, found in all old, rich land, and cuts off the young plants in the hill, just above ground below the bud, hence it is called by planters the "*cut-worm*." Five bushels of refuse salt, or ten would be better, sown broad-cast over each acre, when the land was laid off for the hills, would effectually prevent their molestations, beside it would be a great help to the tobacco in its young state, giving it a quick and

strong start, though its effects would not last through the season. The great pest is the tobacco worm. This worm is hatched on the tobacco leaf, grows very rapidly, and in a few days arrives at its full age or maturity, when instinct prompts it to bury itself some eight or ten inches under ground. In this self-made grave, it undergoes a change and makes its appearance as a sort of butterfly, which planters call "*Horn-blower.*" These horn-blowers appear about the middle of May, and may be seen every morning and evening, flying about among the flowers and blossoming weeds, taking especial delight in the flowers of the Jamestown weed. They deposit their eggs on the tobacco leaf—laying myriads, not in clusters but seperately, and seldom more than two or four eggs on a leaf. In about a fortnight these eggs produce a little worm so small, it is hardly to be seen by the naked eye, and yet it eats a hole in the leaf as though a large needle had punctured it; in a few days it has grown to be as large as a man's finger, and has eaten pounds of green tobacco. It is constantly eating and digesting its food, growing in size, and discharging its excrement, which is hard and round and black, resembling in form and color "*Lee's Antibilious Pills.*" It is a fact no less true than wonderful, that this little worm, never reaching over two ounces in weight, will eat and digest in fifteen days, from two to three pounds of green tobacco. The larger ones make considerable noise while eating. They ought to be destroyed as soon as they appear, or they will destroy the crop. Turkeys aid greatly the planter in killing these worms. They eat great quantities, and kill many they do not eat. It is a cherished amusement with the turkey, to kill tobacco worms, and they grow fond of the sport. Each year there are two "gluts" of worms. The first attacks the tobacco, when about one fourth grown, and the second when it is nearly ripe and ready for housing. The first can readily be subdued with a good supply of turkeys, and if then they are effectually destroyed, the second glut can be easily managed, for it is a well settled fact, that a large portion of the first glut reappear the same year, as horn-blowers, and breed myriads. When the second army of worms comes on, the tobacco is generally so large that turkeys are of little use. They must then be killed by hand. Begin in time, start when they are being hatched—keep up a strict watch, going over the whole field, plant by plant, kill all that are to be seen, and destroy the eggs, and by constant attention, each morning and evening to this business alone, with the whole force of the farm, they may be prevented from doing much harm. When they disappear the second time, there is no more cause of trouble, for that year at any rate. They might be in a few years wholly exterminated by concert and united action on the part of all tobacco planters, and in this manner. About the first of December, after hard frosts have set in, plough up every field where tobacco had been grown that year, about ten inches deep. Those that were in the chrysalis state, would be thus turned up and be destroyed by the frosts, snow and rain, and birds. Very early in March, go about the tobacco houses and dig up the floors, scrape under the sills, and plough deeply for some distance, around the houses, and destroy every one that could be seen. Make it also a point to reward every negro, old and young, liberally, for each horn-flower's head throughout the *whole* year. In 1848 one gentleman offered one cent for every horn-blower that his negroes should catch and bring to him. He allowed them one hour before sunset, to stop work so as to catch blowers. The first evening they brought him in 1,650!!! Another paid to his people during the season, fifteen or twenty dollars, at only one fourth of a cent per head. Another farmer in digging about his tobacco house for the manure which had accumulated there, says he destroyed over a bushel of worms in the chrysalis state. The same year a planter gathered sixteen bushels of worms from 40,000 plants, and did not get over one half then. That year great attention was paid to the destruction of the blower and worms, in the forest of P. George's County, and for several years after there were comparatively but few worms. If this system was regularly pursued by every planter, in a few years this dreadful enemy of the plant, would be entirely exterminated, or at least rendered harmless.

13*th.*—*Best method by horse-hoes or any other, to keep the field clean from weeds.* Has been fully discussed under the paragraphs 5th and 6th.

14*th.*—*The planting of Tobacco at different distances compared with one another.*

Three feet each way, under *all* circumstances, is most generally the best distance. It is wholly against my experience, to plant tobacco in drills, and work it only one way. On very rich land it will grow very large, as close as two feet each way—and two feet nine inches will produce large tobacco, but all these close plantings are objectionable, because it becomes troublesome to work, is liable to be broken and torn, and the worms cannot be properly got rid of, when it is so close together; for these reasons I much prefer three feet each way, or at any rate 3x2 feet 6 inches. The closer it is planted, the finer will be the texture and quality as to color. This is my experience and observation of the crops of others.

15*th.*—*Different operations which it is subjected to before cutting.* See them fully explained, under headings 5th. and 6th.

16*th.* 17*th. and* 18*th.*—*Taking in the crops—the different operations to which it is subjected before being sent to market;—and the best mode of packing,* have all been treated of, under 5th. and 6th. sections or paragraphs of this Essay.

19*th.*—*Preparations or substances used for the preservation of the leaf, before and after being ready for market.*

No other preparation or substance is used, or need be used, than such preparation as herein before stated, and the hogshead is the only substance required to preserve the leaf for ages, if it was well conditioned when packed into it, provided it be kept *dry*—that is, the hogshead kept out of the wet weather, and free from water.

20*th.*—*Effect of watering, or artificial Irrigation, on the development and quality of the tobacco.*

The tobacco plant requires frequent and light showers, or cool nights and heavy dews. Too much water as effectually kills it, as too much heat and drought. Judicious watering of the seed-bed is often very happy in its effects, and sometimes positively necessary. The plants could always be forced by this process, but the danger is that if forced too much, they become over-grown before there falls sufficient rain to enable the planter to set them in the hills. In a dry season what is termed watering is often done, and succeeds well. This is done, by watering a part of the seed-bed, so that the plants may be drawn easily without breaking

the roots, or brusing the leaves or buds. The hills being newly made, about two hours before sun-set, the laborers go into the field with the plants—one or two pass over the ground with stout clubs, striking one end in the centre of each hill, about 2 inches deep, and large enough to hold half a pint of water, others follow with buckets and cans, or gourds, and fill quickly the holes with water, others follow and drop the plants, which are directly planted by the planters. The water should have time to settle in the earth before the plants are stuck. Some prefer to do this work early in the morning before the sun is an hour high. To insure their living, it would be well to have grass, such as clover, cut early in the morning when moist with dew, and drop a handful on each plant, planted the evening before or the same morning. This keeps the ground moist, and shades the plant until it takes root, and before any bad effect could be produced upon the plant by lying upon it, the grass or clover dry up as the plant gradually increased in vigor, and in a few days it could scarcely be seen, while by its protective shading, the plants would be green and growing, and capable of resisting the scorching rays of the sun. Where water is convenient to the tobacco field, the hands would after a little practice average four or five hundred plants each evening. Thus ten hands could plant twenty-five or thirty thousand weekly; but the water must be near and easily obtained. In such situations where general irrigation of the field could be made, there is no doubt but the best effects would be produced. If properly irrigated, not too much water, but frequent applications when the earth was dry and wanting rain, the tobacco would grow quick and mature early, two things that invariably produce a fine article, if the weather should prove favorable for the curing.

Here closes this humble effort. If it prove beneficial to the grower of tobacco, the author will feel happy, and rejoice that therein he finds his highest reward.

November 24, 1853.

WORK FOR THE MONTH.

AUGUST.

A *reminder*, even to the most careful husbandman, may prove serviceable, by calling his attention to things which, in the multiplicity of his duties, he might otherwise forget; we shall, therefore, proceed to give such directions as to what should be attended to in this month, as appears to us necessary to ensure a judicious occupancy of the time of the hands, and an economical direction of the efforts of landed proprietors, in order that, so far as we are capable of doing so, we may be instrumental in promoting their interests. It cannot be presumed that we can enumerate *all* the various matters that should be attended to, but only a part of such as should claim precedence. With this object in view, we will call attention to

Fall Turnips.

In our country this crop may be said to be almost among the neglected things in our agriculture; while, if properly attended to, the *turnip-culture* may be made a source of great profit. In Great Britain, where the cultivation of this root is carried on to a great extent, it has not only enriched her farmers, but been the means of fertilizing the soil also,—and such results might be produced here, if our agriculturists would pursue the same pains-taking system of tillage. *There*, large fields are carefully ploughed, re-ploughed, reduced to the most perfect state of pulverization, and then generously manured before being seeded—or more properly speaking—drilled to turnips, which are carefully cultivated. But *here*, generally speaking, but few farmers think of raising more than a quarter of an acre—half an acre—or an acre. The ground is mostly manured by penning stock on it, by being ploughed without much regard to accuracy, depth, or neatness, as little attention paid to pulverization, while many never dream of rolling the ground,—the seed is sown broadcast, brushed in, and the crop left to manage itself. There are notable exceptions to this rule; but "like angel's visits, few and far between."

In Great Britain the turnip forms one of the chief substances used in the fattening of stock for market. It is to be sure used as an adjunct in stall-feeding, with other substances of a more nutritious character; but even as there used, its value is properly appreciated; for every one knows that if its nitrogen is not large—if its proportion of starch is a mere *trace*, it has a small per centage of a substance called *pectine* by the chemists, which seems to answer the same purpose in feeding as does starch,—and as we think there is one fact connected with the use of turnips that has been greatly overlooked, we allude to its bulk; *distension*, being, in our opinion, a matter of importance to be attended to in the process of feeding.

The following Table will give a tolerable correct view of the relative value of the *turnip* as an article of food, as compared with many of the crops grown for that purpose:

TABLE,

Showing the average of Organic substances in the more common crops.

	Wheat.	Oats.	Rye.	Indian Corn.	Rice.	Peas.	Potatoes.	Turnips.	Mangel Wurtzel.
Water,	15	16	12	13	13	14	75	86	91
Starch,	42	38	40	40	70	72	15	7*	4
Gum and Sugar,	9	7	14	6	4	6	2	2	13
Nitrogenous Substances,	15	16	13	17	7	24	2	1½	1
Oil,	2	6	2	6	1	2	½	½	1
Woody fibre,	15	15	16	14	4	6	4	3	80
Ashes,	2	2	2	2	1	3	1	1	1
	100	100	100	100	100	100	100	100	100

*Here, it will be remembered that *pectine* occurs in the place of starch.

He who looks at the mere fact, that in 100 lbs. of turnips there are 86 lbs. of water, and but 14 lbs. of dry matter, will naturally conclude that its *nutritive* properties are small indeed, and so they are as compared weight for weight with the grains; but this comparison must be carried still farther. Suppose we compare the acreable product of *wheat* and *turnips*, and how then stands the nutrimental products of that quantity of land, as relatively compared? It is affirmed by *Norton*, that twenty-five tons of turnips is not an uncommon crop on good land: if these contain but 10 lbs of solid matter in every 100 lbs. the aggregate amount from 25 tons would be 5000 lbs."

"Thirty bushels of wheat to the acre, at 60 lbs. per bushel, would only give 1800 lbs. The dry matter of the turnip is nearly as nutricious as wheaten flour, and we see from the above that there would be nearly three times as much of it."

"Indian Corn competes better with them. Land that would yield 25 tons of turnips or 30 bushels of wheat to the acre, would produce 60 bushels of corn, and this at 60 lbs. per bushel, would give 3600 lbs. per acre of food, superior to either of the others, *weight for weight.*"

"It is plain from the above facts, that the root crops are of great value. The animal, it is true, has to eat very large quantities, to produce much increase in its size; but then the yield per acre is so exceedingly great, as to more than counterbalance this seemingly disadvantage, in the comparison with more contracted forms of food."

A word here as to the mode of feeding turnips, as well as other roots to stock:—they should always be cut up fine and mixed with cut hay, straw or fodder, and would be the better of having meal, or chopped grain of some kind mixed with them.

Having shown the *organic* substances which enter into the composition of the turnip, it is but fair that we also show of what its *inorganic* or mineral substances also consist,—and these will be shown by the following table:

Analysis showing the INORGANIC *elements of the ash in 10,000 lbs. of the roots, stalks and leaves of the turnip.*

	Roots.	Leaves.
Potash	23.86	32.3
Soda	10.48	22.2
Lime	7.52	52.0
Magnesia	2.54	05.9
Alumina, (Clay),	0.36	00.3
Oxide of iron,	0.32	01.7
Silica, (Sand),	3.68	12.8
Sulphuric acid	8.01	25.2
Phosphoric acid	3.67	9.8
Chlorine	2-39	8.7

If we examine the above table, we will find *potash, lime, Sulphuric acid, Soda,* and *Phosphoric acid* largely predominating, and hence the necessity of providing such substances as will afford them to the plants. Potash from its delequescent nature, is apt to be washed away from most soils, and therefore should be applied to all soils wherein turnips are grown, as besides being essential as an integral element in turnips, it is important to prepare the silica in the soil to be taken up in the form of a silicate by the roots of the plants. How shall we obtain this supply of potash? Why, by an application of potash—but this is too costly, and a supply neither general or adequate:—we may ply it through an application of *ashes,* either unleached, or leached; but here again, the same objection may rest against ashes as against the potash of commerce, viz. insufficiency of supply. *Sea weeds,* are rich in potash, yielding, on an average, from 8 to 10 per cent., but here again, the supply is circumscribed, being confined to the seaboard and its immediate tributaries. Stable and barnyard manures, if well kept, will yield a sufficiency, besides every other necessary substance, provided the quantity applied of either be large. *Guano* contains some 5 per cent of the sulphate of potash, and so far as that quantity may go, will yield the substance to the plant,—and it is but reasonable to assume it as a fact, that most soils contain appreciable quantities of it. The safer plan, however, in the cultivation of turnips, is to apply in the form of manure such substances as abound in potash, and we know of none more likely to answer than ashes. If ashes be applied, there is this advantage:—in applying ashes, we apply every *inorganic* substance that enters into the constitution of the turnip. The same remark is equally applicable to applications of fresh sea weeds, with this addition. *Sea weeds,* when taken and applied *fresh,* contain considerable animal matters, susceptible of being converted into nitrogen: they are, indeed, both animal and mineral manures, when applied fresh. *Fishes* are particularly rich in *potash,* yielding, on an average some 18 or 20 per cent. of the mineral. Fish therefore formed into compost with plaster and any rich earth, would, when partially reduced, be an admirable manure for turnips, for independently of their being rich in potash, as we have just stated, they are rich also in phosphoric acid, lime, chloride of sodium, soda, &c. *Soda,* another element that abounds in turnips, as well as *chlorine,* may be supplied by common salt. *Sulphuric acid* can be easily supplied by plaster.

Preparation of the land for Turnips.—It is all important to the successful growth of turnips that the land be ploughed deeply, truthfully, and well, and that it be thoroughly pulverized, by repeated harrowing and rolling. The soil, which should be a sandy loam, or deep fertile sand, or light gravelly loam, should be ploughed fully 8 or 10 inches deep, and then be brought to the finest tilth by the agencies named above. Prior to sowing the seed, whether they be put in broadcast, or by the drilling machine, the land should be rolled.

Manures—kinds—quantities, &c.—Either of the following kinds and quantities of manure will grow an acre of turnips:—

No. 1. Twenty two-horse loads of well rotted barn yard and stable manure, or the same quantity of either, is sufficient to grow an acre of turnips. One half of the kinds named should be ploughed in 8 inches deep, the other half ploughed in 4 inches deep; then top-dress with a mixture of 10 bushels of ashes, 2 bushels of salt and 1 bushel of plaster, harrow this mixture in, roll, sow the seed, harrow the seed in *lightly* with a *light* harrow, and roll the ground.

No. 2. Dissolve four bushels of bone-dust, in 120 lbs. of Sulphuric acid, mixed with three times its bulk of water. Dilute the acid with the water, place the bone-dust in half hogsheads, or vats, pour one third the diluted acid over it, taking care to stir the bone-dust well, so that every portion of the dust will be covered with the acid. After standing a day, then pour on the bone dust a second third part of the dilute-acid, stir the bones as before. On the third day, add the last third of the dilute-acid, stir the bones as before. Between each application of the acid, stir the bones repeatedly, to let in air, bring the dust in contact with the acid, and bring on speedy decomposition. When the bone-dust becomes decomposed, which will be in a few days, mix thoroughly with the mass, 100 lbs. of guano, 10 bushels of slacked ashes, 2 bushels of salt and 1 bushel of plaster. Broadcast the mixture evenly over the ground, which must be previously prepared by ploughing, harrowing and rolling, as recommended, then harrow it in, and roll. Then sow the seed, *lightly* harrow it in with a *light* harrow, and roll.

No. 3. Mix 10 bushels of bone-dust, with 10 bushels of ashes, 2 bushels of salt, and 1 bushel of plaster, throw the whole into bulk, let it remain 7 or 10 days, shovel it over well, then broadcast it over the ground, harrow it in and roll:—then sow your seed, lightly harrow them in with a *light* harrow, and roll.

No. 4. Mix, layer and layer about, 5 two-horse cart-loads of well rotted stable manure, 5 do. of well rotted cow-dung, 10 do. of marsh or river mud, 100 lbs. of guano, 10 bushels of leached, or 5 bushels of unleached ashes, 1 bushel of plaster, 2 bushels of salt, and 200 lbs. *American Phosphate of lime*. Let the whole remain in bulk three or four days, then shovel the whole over well, broadcast it over the land, (previously prepared as before stated) harrow and cross harrow it in, roll, sow the seed, *lightly* harrow them in with a *light harrow*, and roll.

No. 5. Mix together 10 two-horse cart-loads of *marsh* or *river mud*, 400 lbs of *American Phosphate of lime*, 200 lbs. of guano, 1 bushel of *plaster* and 2 bushels of *salt*. Let the whole remain in bulk a day, then shovel it over, plough the mixture in, harrow and roll, then top-dress with 10 bushels of ashes, sow the seed, harrow and roll again.

No. 6. Mix together 20 two-horse loads of *sea-weeds* (the fresher the better) 400 lbs of *American Phosphate of lime*, 200 lbs. of guano and 1 bushel of plaster; let the mixture lie in bulk two or three days, then shovel it over, sow it broadcast, plough it in, harrow and roll, then sow the seed, harrow them lightly in with a light harrow, and roll.

No. 7. Form into compost 5000 *fish*, (equal in size to alewives or herrings), with 10 loads of *marsh or river mud* and 1 bushel of plaster, mix the whole well together, throw them into bulk, cover the heap with 3 inches of marsh mud, in which state the mass should lie 10 days, then be shoveled over and well mixed. Plough one half the compost in 8 inches deep, harrow and roll, then plough the other half in 4 inches deep, harrow and roll; then sow the seed, harrow it *lightly* in with a light harrow, and roll.

For *preparation of the seed; quantity of seed per acre; top-dressing, and after culture*, see p. 7, July number.

Time of Sowing.—From the 1st to 15th of August, the nearer the first of the month the better.

Seeding of Rye.

Rye may be seeded any time during this and the next month. We prefer sowing during the present month, and would advise its being got in by the 20th instant, if possible.

Soil for Rye.—The soil best adapted to the culture of Rye is the one in which sand most abounds; but if a *good crop* is to be grown the soil must have in it such substances as form the elements of the plant in its wholeness. It will grow on poorer and lighter lands than most other grains; but like every living plant or thing it must have food, both organic and inorganic. An acre of Rye, according to the calculation of professor Morton removes from the earth the following amounts of inorganic matters, viz:—

In the Grain,—0.64 lbs. of Silica,—8.80 lbs. of Phosphoric acid,—1.35 lbs. Sulphuric acid,—0.79 lbs. lime,—2.12 lbs. Magnesia,—4.94 lbs. Potash, 1.50 lbs. Soda.

In the Straw,—108.36 lbs. Silica,—6.42 lbs. Phosphoric acid,—1.39 lbs. Sulphuric acid,—15.22 lbs. lime,—4.05 lbs. Magnesia,—2.31 lbs. per oxide of iron,—28.87 lbs. Potash,—0.95 lbs. Chloride of Sodium, and 0.43 lbs. of Chloride of Potassium.

Manuring for Rye.—The following recipes will furnish the right kinds and quantities of manure to ensure a good crop of Rye, even upon poor lands, should the season prove propitious, and *hard rains not occur* when the grain is in bloom, an occurrence which in our opinion often greatly abstracts from the produce of grain: The quantities intended for an acre of land.

No. 1. 10 loads of woods-mould, 5 two-horse cart loads of stable or barn-yard dung, 5 bushels of unleached ashes, formed into compost, layer and layer about, suffered to lie 10 days in bulk, then to be shovelled over, spread broadcast and ploughed in. Top dress with 1 bushel of plaster per acre.

No. 2. Plough in 10 two-horse loads of woods-mould, river or marsh mud, mixed as above with 10 bushels of leached or 5 bushels of unleached ashes, formed into compost and treated as above. In the spring top-dress each acre with 160 lbs. of the Nitrate of Soda.

No. 3. 10 two-horse cart loads of woods-mould or river mud mixed with 150 lbs. of guano and 1 bushel of plaster to be ploughed in, the land harrowed, then top-dress with 10 bushels of leached ashes, harrow and roll.

No. 4. Mix 5 bushels of bone-dust, moistened, 10 bushels of leached ashes, 1 bushel of plaster and 2 bushels of salt well together, let it lie in bulk a week or ten days, to be used as a top-dressing, harrowed and rolled.

No. 5. 4 bushels of bone-dust, dissolved in Sulphuric acid; when the bone-dust is dissolved, mix with the mass 10 bushels of leached ashes, 1 bushel of plaster and 1 bushel of salt, top dress therewith and harrow it in.

No. 6. 5 two-horse loads of marsh mud, or any kindred substance mixed with 200 lbs. guano and 1 bushel of plaster to be broadcasted and harrowed in.

No. 7. 20 two-horse cart loads of sea-weeds to be ploughed in.

Preparation of the ground.—Deep ploughing and thorough pulverization are essentials in the preparation of rye ground.

Quantity of Seed per acre.—From 4 to 6 pecks per acre; the latter the best quantity.

Method of Seeding.—After the ground is ploughed, harrowed and rolled, sow the seed with care, then harrow and cross-harrow it in. This done run water-furrows throughout the field—run them so that there will be no lodgment of water the ensuing winter and spring, and roll across the furrows so as to give them solidity.

Setting a Timothy Meadow.

If you contemplate setting a timothy meadow this year, manure the land liberally with some enriching animal manure, plough it in 8 inches deep, harrow until you have succeeded in making a perfectly fine tilth, then roll. This done, sow on each acre, 1½ peck of well cleaned Timothy seed, harrow that very lightly in with a light seed harrow, then top-dress with 10 bushels of ashes per acre, lay out water furrows, and finish by rolling across the furrows. If you suppose that your ground needs liming, after you have cut your first crop of grass next summer, spread on each acre 50 bushels of lime slaked with a strong solution of salt and water, and 2 bushels of salt.

The succeeding fall, and every second fall thereafter top dress each acre with 4 bushels of bone dust and 10 bushels of leached ashes, then harrow it with a heavy harrow and roll.

Meadow and Pasture.

If you have no market for your hay, it will be well for you to set your fields in such kinds of grasses as will afford you both hay and pasture. As your fields will remain in grass for many years, it will be necessary to give it a good dressing of an-

imal and mineral manures, and as we presume you have not stable and barn-yard manure, probably, to spare for such purpose, we would recommend the mixture hereinafter to be named. The quantities named are intended for an acre of land.

Preparation of the land.—Plough the land at least 8 inches deep, then harrow and reharrow it until a fine tilth shall have been obtained, then roll, when your land will be in a condition to receive the following mixture, viz:—

Moisten 10 bushels of bone-dust, that done, add
10 bushels of ashes,
2 bushels of salt, and
1 bushel of plaster,—

Mix the whole thoroughly together, leave it in bulk 10 days, or 2 weeks, then shovel it over nicely so as that the several substances shall be thoroughly mixed together; then apply it broadcast, harrow it in and roll. Having thus prepared your land, it will be in a proper condition to receive the grass seeds.

Quantities and kinds of seed.—Sow on *each acre*
1 bushel of Orchard grass seed,
½ " " Kentucky Blue-grass seed,
½ peck of Timothy seed,
½ bushel of Perennial Rye-grass seed,
1 bushel of Tall Meadow Oat-grass seed, and
3 pounds Sweet scented Vernal grass seed.

The orchard grass seed before being mixed with the others should be *moistened* and left in bulk for from 12 to 24 hours, then mixed with twice its bulk of ashes.

Sow the timothy seed by itself. The other seeds including the orchard grass seed must be mixed with twice their bulk of ashes and sowed together. The seed being sown, harrow them in lightly with a light one-horse seed harrow, then lay off water-furrows and roll across them.

A meadow and pasture thus prepared and set, will ensure you a luxuriant crop of grass for hay each year, and pasture for your stock, from two weeks after hay harvest until after frost, and if given biennial top-dressings such as we shall prescribe will last during your life-time. Don't be alarmed at the trouble and expense which the laying down of such a meadow will involve, for it will repay you with more than compound interest within two years from the time of laying it down.

Biennial top-dressing and mode of application.—Every second year mix together, for each acre
2 bushels of bone-dust,
10 bushels of ashes,
1 bushel of salt, and
1 bushel of plaster.

Mix the whole together, spread it broadcast, harrow it in well and roll the ground. Such dressings and treatment will ensure you good crops of hay and luxuriant pastures for many, many years, besides enabling you to set an example worthy of the emulation of your neighbors, and such emulation is generous, noble and praiseworthy.

Treatment of Fall Potatoes.

Keep these clean of weeds and grass and the earth well stirred between the rows. Dust the vines once every two weeks, early in the morning with a mixture comprised of equal parts of lime, ashes, salt and plaster.

Granaries.

Before you have your grain stored away, have the floors, sides and ceilings of your granary washed with hot ley, and, when dry, white-washed.

Poultry Houses.

Clean these out, nests and all, place some ashes and tobacco stems at the bottom of the nests, and make nests of fresh straw. Don't forget that the dung of your poultry is among the richest made on your place, and that, if well kept and preserved from the wet and air, every two barrels of it will manure—fully manure—an acre of land—that in every two barrels of it there are the elements of thirty bushels of wheat. Save it, therefore, and to its extent, you may be relieved from the purchase of so much guano.

Treatment of Stubble Fields.

If you have no pasture grounds other than your stubble fields you may greatly improve the herbage thereon, by giving to *each acre* a top-dressing comprised of
2 bushels of bone dust—the bone dust to be moistened before being mixed with the other substances.
5 bushels of ashes,
2 bushels of salt,
10 bushels of mould, and
1 bushel of plaster.

Let the whole be shoveled over well, in order that the admixture be thorough and complete; throw the whole into bulk, let them remain two weeks, then broadcast the mixture over your field, harrow and roll it in. Keep off your stock a few weeks and you will have fine fall pasture, besides greatly adding to the fertility of your land, and enhancing its value for next year's cropping.

Sheep.

Treat these as we advised last month.

Milch Cows and two-year old Heifers.

See that these are served this month. If your bull is not a good one, procure the services of one whose family is distinguished for their milk and butter yielding properties. Money thus laid out will bring good interest.

Late Corn.

Keep your *cultivators* busy in keeping the grass and weeds down in your late corn, and the earth well stirred and open to receive the benefits of the air, the dew and the rain.

Materials for Manure.

Almost every farm has on it vast quantities of materials for making manure—and need only to be collected and formed into compost heaps to be so many sources of profit. It should therefore be the duty of all to have all such substances collected and thus disposed of.

Threshing out and selling Grain.

We have given much reflection to these subjects, and we have come to the conclusion, that, under the present aspect of European affairs, it is to the interest of farmers to have their wheat and other grain threshed out promptly, and that, whilever the present price of wheat shall continue, it would be equally their duty and interest to sell.

Purifying Poultry Houses.—A writer in the (English) *Poultry Chronicle*, purifies his poultry houses in the following manner:—Once a month, or when he has no sitting hens in his house, he removes all the old nests, closes the doors, and stops all the crevices as far as possible, and then puts a peck of saw-dust in a heap, in the centre of the house, and sets fire to it. He lets it smoke 15 or 20 minutes, and finds the house completely purified, both of bad odors and vermin.

WORK IN THE GARDEN.

AUGUST.

There is no time at this period of the season for anything but action, we will therefore proceed at once to throw out our hints as to what should be done, and done quickly.

SETTING OUT CABBAGE PLANTS.—If all your Cabbage plants are not already set out, seize the occasion of the first rain to set out all you intend for winter use; the sooner they are put out now, the greater certainty will there be of their heading in time for autumnal and winter use. Set out also your late Borecole plants.

SPINACH.—Prepare a bed the *first* and *second* weeks in this month and drill in Spinach seed for use in September and October.

The last week in the month prepare a dry gravelly bed and sow spinach seed of the prickly variety for spring consumption. If sown on such soil, the plants will withstand the frosts of winter and make fine greens at that period when others are scarce.

SOWING RADISH SEED.—In the beginning of this month sow seeds of the following varieties of Radish, viz:—Short-top,—Salmon,—White Naples,—White and Black Spanish.

ASPARAGUS BEDS.—Asparagus beds should be kept clean of weeds and grass.

TURNIPS.—Sow a bed of these—For early use the *Early Dutch* is the best. For winter use the *Scarlet Top*.

CELERY.—Set out your Celery plants for your late crops, and continue to earth up your advancing crops. The first must be done in *wet* weather—he latter in *dry*. In earthing up celery, the earth, must be perfectly dry and perfectly pulverized with the back of the spade. Before applying the earth the leaves should be carefully gathered up, and especial pains be taken not to cover up the hearts of the plants.

SMALL SALLADING.—Every seven days during the month sow small sallading of all kinds. At this season of the year they succeed best on shady borders.

PLANTING GARDEN PEAS.—Drill in a few rows of garden peas within the first ten days of this month; if sown at such time they will be fit for use in September. Soak the seed peas in warm water 4 or 5 hours before planting them; water the rows freely when planted, continue to do so until the Peas come up and afterwards until a rain occurs.

LETTUCE.—Sow lettuce seed by the 10th of the month.

ENDIVES.—Such of your Endive plants as are large enough should be tied up to bleach.

PLANTING BEANS.—Put in a few rows of Kidney Beans by the middle of the month. If the weather should prove dry, water the rows every afternoon. Before planting the beans soak them in warm water 4 or 5 hours—give them a good soaking watering when you plant them, and continue to water until rain occurs.

MELONS AND CANTALEUPES.—Keep these clean by hand, water them in dry weather and be careful not to tread upon the vines while doing so.

HERBS.—Cut your herbs and dry them in a shady room, mark them and tie them up in paper bags, and hang them up in the shady side of an airy room for winter use.

CORN SALAD.—Sow seed of these and when the plants are up and a few inches high, thin them out so as to stand 3 inches apart.

CABBAGES.—Keep your cabbages clean of weeds, hoe them up at proper intervals, and see that, in times of drought, they receive copious waterings, as they will not thrive unless the ground is kept moist.

WATERING GENERALLY.—As no plants will grow luxuriantly unless there be plenty of moisture in the soil to prepare their food, see that your gardener uses his watering pot with a liberal hand.

WEEDS.—Make it a point of duty—and we are sure it is of interest—to have every weed and spear of grass within your garden enclosure exterminated. Suffer none to go to seed. A garden well kept is not only a source of great comfort and profit, but one of the most sightly objects that ever challenged the inspection of human eyes. It binds one to his home—acts as a link in the chain of his affections, and while it excites in his own bosom the feelings of generous pride and ambition, it wins from his neighbors and friends the just meed of praise and admiration. Such being the case, we would conjure country gentlemen to see that their gardens are models for others to pattern after.

IN THE SENATE OF THE UNITED STATES,

Mr. Morton made the following Report:

The Committee on Agriculture, to whom was referred the memorial of the Maryland State Agricultural Society, submit the following report:

That they have had under consideration the said memorial, (which, it appears, has been adopted by the United States Agricultural Society, recently convened in the city of Washington,) proposing the establishment of an agricultural school and experimental farm at Mount Vernon, under the auspices of the general government, and approve the design of the memorialists, and ask for it the favorable consideration of the Senate.

The United States, while they lead the civilization of the age in almost every other useful art, are far in the rear of the rival States of Europe in that which relates to husbandry. England, Scotland, and Ireland, France, Germany, and even the minor States of the continent, have agricultural schools, with experimental farms attached, to blend science and practical skill in forming a model system of cultivation. A systematic education is deemed indispensable to improve the art of husbandry, as it is found essential to impart progress in every other pursuit of civilized life. We have no schools of agriculture, and receive only from report and very remote example the impulse which has led to renewed efforts in this country, to imitate the cultivation abroad that has, in some degree, redeemed it from the rudeness which threatened to condemn us to perpetual inferiority.

The longing in the public mind for scientific teaching and experimental proof and example, which contrast the improvement of Europe so strongly with ours, is so generally manifested that Congress has attempted to gratify it, by publishing annually, at great expense, gleanings on agricultural subjects, gathered by the Commissioner of Patents, and by scattering seeds of various kinds among the farmers of the country. This effort on the part of Congress, although well received, evidently does not satisfy its constituents. The innumerable agricultural societies springing up everywhere, and the multitude of agricultural journals, all express the general desire in favor of some head and system, to make a model school of instruction,

which will beget similar institutions in the States, through those taught in it. The contribution Congress now makes to advance the husbandry of the nation is evidently not properly directed; for it leaves the public unsatisfied and restless in regard to the aid afforded by government to advance the great art upon which its wealth and power mainly depend. The committee think, whatever Congress attempts to do in a matter of such magnitude, it ought to do well. It exerts its power liberally to promote and protect the commerce of the country. Military and naval schools are the smallest part of the machinery devoted to that object. Manufactures have had millions on millions lavished, in indirect bounties, to establish them. Our Patent Office, and its appendages, constitute a government establishment to advance, by the large bonus derived through patent rights on every good invention in mechanics, the interest of the class engaged in that species of national industry. Copyrights provide remuneration to stimulate literary labor. Yet the government does nothing to embody intelligence and give it direction to assist the efforts of individuals in the greatest business of life, and that which should be the greatest care of government.

The committee would recommend the memorial of the State Agricultural Society of Maryland, supported by that of the United States, to the favorable consideration of the Senate, as presenting a plan well calculated to fill, what all admit to be a great void amid the institutions of the country. It recommends an appropriation to be placed at the disposal of the President, and applied at his discretion, to purchase Mount Vernon, to be converted into an experimental farm, connected with an agricultural school, and both to be attached either to the Smithsonian Institution or the Patent Office, and to receive from the controling authority of the one with which it may be associated, an organization in analogy, (so far as difference in objects allows,) like that of the West Point Academy, under the War Department; the plan when matured to be submitted to Congress for modification and adoption.

The committee, in further elucidation of its views, submit the said memorial, which contains the recommendations of Washington upon the subject, as a part of this report, and ask that it be printed herewith.

MEMORIAL.

To the Congress of the United States of America:

The Maryland State Agricultural Society, (through its committee, appointed at its last general meeting,) beg leave to submit the views entertained by it in relation to the improvement of agriculture, and to solicit for the plan proposed in the memorial presented in its behalf the favorable consideration of Congress.

The Smithsonian Inst. at Washington, has been spoken of as a seminary, around which might spring up that national board or school of agriculture, with an experimental farm annexed, contemplated by Washington. During his presidency he favored such a plan as a great desideratum to assist our progress.

"The National Board of Agriculture in Great Britain," he says, "I have considered one of the most valuable institutions of modern times;" and in reply to a letter of Baron Poelnitz, suggesting the establishing of a farm under public patronage, for the purpose of increasing and extending agricultural knowledge, he expresses his solicitude upon the subject, but adds, "I know not whether I can, with propriety, do any more at present than what I have done. I have brought the subject, in my speech at the opening of the present session of Congress, before the national legislature."

This was his first message. After eight years' administration of the government he renewed the subject; and in his last message to Congress, near its close, impresses the subject nearest his heart with zealous argument, (seldom used in his messages,) evincing the deep solicitude he felt in the success of his recommendation.

"It will not be doubted that, with reference either to individual or national welfare, agriculture is of primary importance. In proportion as nations advance in population and other circumstances of maturity, this task becomes more apparent and renders the cultivation of the soil more and more an object of public patronage. Institutions for promoting it grow up, supported by the public purse; and to what object can it be dedicated with greater propriety? Among the means which have been employed to this end, none have been attended with greater success than the establishment of boards, composed of proper characters, charged with collecting and diffusing information, and enabled by premiums and small pecuniary aids to encourage and assist a spirit of discovery and improvement. This species of establishment contributes doubly to the increase of improvement, by stimulating to enterprise and experiment, and by drawing to a common centre the results, everywhere, of individual skill and observation, and spreading them thence over the whole nation. Experience, accordingly, has shown that they are very cheap instruments of immense national benefits.

"I have heretofore proposed to the consideration of Congress the expediency of establishing a national university, and also a military academy. The desirableness of both these institutions has so constantly increased with every new view I have taken of the subject, that I cannot omit the opportunity of, once for all, recalling your attention to them.

"The assembly to which I address myself is too enlightened not to be fully sensible how much a flourishing state of the arts and sciences contributes to national prosperity and reputation. True it is that our country, much to its honor, contains many seminaries of learning, highly respectable and useful; but the funds upon which they rest are too narrow to command the ablest professors in the different departments of liberal knowledge for the institution contemplated, though they would be excellent auxiliaries.

"Amongst the motives to such an institution, the assimilation of the principles, opinions and manners of our countrymen, by the common education of a portion of our youth from every quarter, well deserves attention. The more homogeneous our citizens can be made in these particulars, the greater will be our prospect of permanent union, &c."

Washington's heart was at this time, when at the loftiest point of his elevation, still looking back to the unpretending pursuit from which he had risen to the command of armies, confederacies, and finally the great modern model republic. He looked back to the soil, and that honest industry which made it teem with blessings. He looked back to the productive masses that make up the States and

nation, and felt it to be the duty of those placed by them in power to use that power to facilitate and perfect that creative industry which is the foundation of the prosperity of the whole country. A national board or school of agriculture, with all the advantages which books and science could bring; with all the assistance which philosophical apparatus and experimental tests, applied directly to the soil, upon the largest scale, could lend; with all the opportunities which the cultivation of a considerable domain could afford, for the introduction of that tuition and discipline necessary to form a practical skill and thoroughly systematized views, in the relation to the various modes of farming, was what he contemplated.

A national school, with all these essential requisites, was the great object which Washington had at heart at the close of his life.

It is fortunate at this time that Congress, in acting on the bequest of another far-seeing philanthropist of a foreign land, has organized an institute as a national instrument of instruction, which can, without starting any constitutional cavil, be employed in imparting agricultural knowledge, not only among our own countrymen, but among men of all countries. The express injunction of Smithson's will, which Congress, as a trustee, has undertaken to execute, is "to diffuse knowledge among men." Can it be pretended that agricultural knowledge is not that sort of knowledge which the benevolent friend of human progress wished to disseminate? The design of the utilitarian, who sought, in transferring his wealth to a new country, where an energetic people were scattered over a rich but rude domain, to dedicate it to the progress of his race, in pursuits to which they were called by surrounding circumstances, and which were most likely to promote their prosperity, would not exclude from the knowledge he provided for them that on which their welfare most depended. Could he have meant, in providing for the diffusion of knowledge among men, to provide only for lecture-rooms for *savans*—for instruments to repeat for them philosophical experiments which had been taught them in schools, and which would bring within the circle benefitted some dozens of learned professors in a nation? Or could the giver of the Smithson fund, intending "to diffuse knowledge among men," consider his aim accomplished by gathering up a great library for the enjoyment of the literati who might seek in Washington food for their studious appetites? On the contrary, the very phrase of the will, which enjoins "a diffusion of knowledge among men," would seem to exclude those who claim to be already learned in all the abstract sciences, so that the bequest might be made universally useful by dispensing knowledge among the masses of men who have not the time nor the means to devote to abstract scholarship—among that great body of men who make up the nation, and to which the mind instantly recurs and contradistinguishes from the small class of learned professors and philosophical students.

The knowledge that Smithson would diffuse among men must be that which would be useful to the many, not the few. He could not hope to diffuse among men generally the science of Newton, of Sir Humphrey Davy, of La Place—in a word, the abstract science of all the schools, ancient and modern. The knowledge he wished to diffuse would be the grand results of their labors, as "coming home to the bosoms and business of men." And what subject is it more important to bring the lights of science to illustrate and improve, than the great leading one of agriculture, which is the substratum of every useful art, of all the prosperity of the country? The farmers of the United States have, then, a claim, the strongest claim, that the Smithson fund shall, at least in part, be devoted to the purpose of increasing that knowledge, which is of all others most useful to the world.

It has been suggested that a happy union might be effected between that experimental system for the improvement of farming which the last hours of Washington's life were busied in maturing, and the institution which has since been founded in the city of Washington under the bequest of the philanthropist Smithson, "to increase and diffuse knowledge among men." The farmer of Mount Vernon concentrated all his views to make the beginning of the new century (1800) an era from whence a progressive improvement should start on his own estate, that might teach the lesson of restoring worn-out lands and give the impulse to the indefinite increase of fertility, beyond that of the original condition of our soils.

This system he learned from his European correspondence, was, with the aid of capital, the light of science and of practical skill, associated together by boards of agriculture and farming schools, producing such results in Europe. His plans were laid and drawn out in elaborate written instructions to the manager of his estate, and he was on his horse from day to day, riding from farm to farm, to second, by supervision and oral explanations, the designs he contemplated, when he took cold from exposure in a snow storm on the 12th of December. It produced quinsy in the course of the night of the 12th, and closed his career on the 14th in death. Thus the great intellect was quenched when practically employed in the endeavor to make Mount Vernon realize some portion of the vast scheme of agricultural improvement which his last message so impressively urged on Congress. What a tribute would it be to his memory if Congress should now take up his design, frustrated by the hand of death, and make it immortal by selecting Mount Vernon as the seat of an agricultural school and model farm, uniting it, as a branch, to the Smithsonian Institute—the board of regents forming the board of agriculture which Washington contemplated, and the learned professors bringing all the lights of science, aided by experiments in the lecture-room and on the farm, to increase agricultural knowledge and provide for its diffusion. What a monument would Mount Vernon become over the dust of its glorious founder—the founder of the republic—when redeemed again from wilderness and desolation by the power and genius of his country! It would be seen surpassing the finest cultivation of the most perfect model farms of Europe, as our country surpasses Europe in every useful enterprise, exciting its emulation, worked by the hands of scholars coming from the several States of the Union, repaid for their labors by the nurture, the energy and the practical skill acquired from it, and by the science taught in the lecture-room of the associated Smithsonian Institution—by the inspirations of patriotism caught at the shrine of Washington, and the emulation to tread in his footsteps, on the very spot that fostered his youth, and in the occupation which fitted him to lead the nation's destinies, it would in effect be the restoration of

patriarchal place and its elevating influences to the children of the Father of his country.

Watched over and cherished by the representatives of the several States and of the people, and by the chief magistrate of the nation, all interested to hallow the spot, to make it teem with improvements, which imitation would spread in the surrounding country, and which the annual swarms of educated youth from its industrious hive would carry with them to the remotest parts, Mount Vernon would renew throughout the world its benignant influence, put on the aspect of that glory which lies now buried in its bosom, and become again a source of joy to the immortal mind it nursed, if the unbodied soul can take an interest in sublunary things once dear to it. For the living surely, and to all future generations of the living, it would be pregnant with blessings, and not only to those deriving immediate instruction in the first and best business of life, but all the pilgrims of every nation on earth that may, through successive ages, visit the sepulchre of the apostle of liberty, would carry away with its patriotic inspiration a sense of the value of tuition in the art which creates personal independence and imparts the vigor of mind and body essential to the maintenance of political freedom.

The principal professor of the Smithsonian Institution (Mr. Henry) has been consulted in reference to its becoming the nucleus of the agricultural establishment here proposed. He does not consider the funds at its disposal more than sufficient to accomplish what he considers the main object in which it is now engaged, and to add to the assistance it now gives incidentally to agricultural instruction, the advantage of a course of annual lectures on the subject. With the aid of the appropriation which Congress makes every session for the benefit of agriculture, in the shape of Patent Office reports, &c., &c., the whole system of instruction contemplated for the agricultural school might be carried out through the agency of the Smithsonian Institution; its regents becoming the board of agriculture, to which Washington looked as the instrument of so much good, and Mount Vernon as the model farm (worked by the students like those of Europe conducted on a similar plan) supporting them by its products.

The purchase of the farm, and the construction of tenements for the superintendent and scholars, would require considerable expenditure in the beginning, but the establishment, permanently founded, under proper management, would preserve itself, and provide amply for the subsistence of the number of scholars engaged in the cultivation of the farm and receiving the instruction of the Smithsonian Institution. As a property appurtenant to the latter, the question of jurisdiction of the general government over the soil, as clashing with that of Virginia, would be avoided. It would be a farm and a school, like other farms and schools in Virginia, subject to the general laws of the State, and to such rules of the Institution as the parties entering it would make obligatory by their own consent.

If, however, unforseen difficulty should be presented to the acquisition and application of it to the object proposed, there are many farms finely situated in the District of Columbia suitable for the design if it shall be the pleasure of Congress to adopt it. And here, (if Congress has exerted a constitutional power in providing a hospital for the insane of the District,) it may, if in its wisdom it deems fit, found a District school extending its benefits to the sane of the whole country.

The undersigned committee respectfully submit this memorial, believing that they represent truly, not only the wishes and interests of the Maryland State Agricultural Society, but many others of the agricultural associations which a zeal for the improvement of husbandry has given birth to in every State of the Union. The opinion generally prevails that Congress may organize a system at the capital for the diffusion of agricultural knowledge, associated with that already established for kindred objects, and that it might be made, under wise and prudent legislation, auxiliary to the aims of every State agricultural school or association in the Union, and thus advance the greatest interest of the country, not merely by its own direct action, but by the impulse it would give to co-operating systems in the several States.

JAS. T. EARLE,
OBEN BOWIE,
CLEMENT HILL,
F. P. BLAIR,
GEORGE W. HUGHES.

[*From the Boston Journal of Agriculture.*]

THE WHITE SHANGHAE.

BY A PRACTICAL POULTRY BREEDER.

A noble fowl, but not (and I speak from some experience) suited to this northern climate of ours. Wherever they have been bred in soft mild climates, they have borne a good reputation. They do not attain to the weight of other sub-varieties here; but elsewhere, to the west and south, it is otherwise. They have proved equally prolific with their kind, so far as my experience has gone. They are the most domestic of any fowls I know. I had one last year who followed me about, and came at the call of "*Jocko!*" as if he had been a spaniel. He had his feet frozen off the winter of 1852-3, and was 11 lbs. weight, a few days before he died. The white Shanghae, where they can be kept safely, will be found one of the most useful and ornamental of the Shanghae kind.

THE BLACK SHANGHAE.

The first of this sub-variety I ever saw was a hen imported by Dr. Eben Wright, of Dedham, direct from Shanghae. She weighed at one time 15 1-4 lbs. and were certainly the largest, and among the finest shaped fowls I ever saw. Subsequently, black Shanghaes have been common; but none of them of the merit of the hen I have mentioned. She was sold by the original owner to a gentleman, who bred from her the notorious (not *celebrated*, be it observed,) "*Hoang Hoass*" and "*Hong Kong*" fowls.

The Black Shanghaes grow to a moderate size, are good layers, and, like other sub-varieties, will produce progeny of various colors. Last year a friend of mine who had cultivated this stock for several years previously, was somewhat surprised to find that nearly two-thirds of his chickens were *pure white*. Had in and in breeding anything to do with this? If the Albino fowl is generally the product of weakness of blood, it may not be hard to arrive at an affirmative opinion.

THE BUFF AND YELLOW SHANGHAES,

Known as the "Perley" and "Forbes" stocks—comprise, I am satisfied, the most favorite of all sub-varieties, and produce the largest fowls of the pure Shanghae breed—and those generally exhibiting the best points. On this account it may be

well to treat a little particularly of these descriptions. In the Buffs the color of the males varies from a dark ginger or red, to a light buff yellow. The darker ones have the hackles and saddle feathers of a bright orange red, and the rest of the body a dark buff or bay, without any black, except the tail, and perhaps some of the quill feathers of the wing.

The *Yellow* fowls are more of a lemon color, but without white feathers. The hackles are of a bright, golden yellow; the saddle and wings a shade darker, but still yellow, and the rest of the body a beautiful, uniform light buff, except the tail, which is black. Black markings on the hackle are considered blemishes by some, in this as well as the Buff kind.

The *Buff Hens* vary in color from a dark fawn to a light yellow, or almost a canary color—the lighter the more highly prized. The color should be uniform as possible. In order to procure the lightest colored, the males ought to be of the yellow sort, as the chances of color follow them more certainly than the reds. It is with these Buffs and Yellows that the principal prizes have been taken at recent shows here and in England; and the extreme neatness of their appearance (more particularly that of the hens) have been justifications to the judges. Besides, as breeding fowls they are at least equal to any others, and vie with them in weight.

The *Cinnamon colored* range from a pale reddish brown to a dark chocolate shade. Their plumage is not so fine as the Buffs—the greater portion of their wing coverts being of a plum color—darker or lighter, and the hackles a duller yellow. The Cinnamon colored hens are much prettier than the cocks—lighter and more uniform in the distribution of color. The only objection brought against them, and it is a just one, is that they are loose feathered. In particulars of laying, &c., they are of average merit with their kind.

The *Emu fowl*, a silky or woolly Shanghae, which has its title from its texture or plumage being similiar to the Australian Emu, does not present any superior points of excellence to justify more than mere notice.

The careful reader (and I am sure he must have been a patient one) will have observed that I class all denominations of importance—Cochin China, *Royal* and *Plebeian*,—smooth legs and feathered legs—in the sub-varieties I have mentioned. It is proper that it should be so; and it is as desirable to understand that all pure Shanghae fowls are meritorious in the same degree as they are treated—no matter what the date of importation, or the individual who imported them.

In selecting breeding fowls, it should be kept in memory that male birds, of the Shanghae breed, do not reach full maturity until they attain their third year, while the pullet is sufficiently matronly in proportion, and in fact, in her second year. The strongest chickens are produced when the male has reached his seniority, and his companions are the earlier broods of the preceding season. Economy will be best studied, and the quality of stock better secured by breeding from males not over four, and females not over three years old. All relationship ought to be avoided in the original stocks; and the pullets of last year should be mated with males of the previous year's growth, and of a different blood. of this particular is neglected, diversity of color, and then debility and degeneracy to a fatal degree will surely ensue. To keep each sub-variety as pure as possible, retaining its outward characteristics, improve or establish it by keeping the best specimens, and add good, fresh blood of the same kind and color at least every year.

Large size and form is inherited at least as much from the hens as from the sire; and if the latter is chosen on account of his weight alone, and not his points of merit, as I have laid them down, the progeny will be worthless in a great measure. Let the hen have size, and merit; and it matters not for the production of great size of progeny whether the size is very large or not, provided the points are good. The largest fowls I ever saw, hens and ducks, when compared with their parentage, were such, I bred by mating small males and large females. I believe all breeders—no matter what part of animal life they may make the medium of experiment, will agree with me that what I have stated is the general result of this precaution in coupling.

HOW TO WINTER ONE HUNDRED SHEEP FROM TWO ACRES OF LAND.

We have been accused of inducing farmers to try *visionary* experiments. We hardly know what meaning those who use the word visionary would put to it in this connection, nor do we care. We have faith in the following project of producing fodder enough on two acres of land to winter one hundred sheep.—But, says Mr. Doubtful, it must be made very rich. Of course it must. That won't hurt the land in the least. But how will you do it? In the first place make the land very rich. Manure it generously—plow it thoroughly—harrow it fine—roll it smooth—put on the marker, and mark it in rows three feet apart, and sow Indian corn in the drills. Hoe it twice, and, after the second hoeing, take your seed-sower and sow between each two rows of corn a row of flat turnip seed. After your corn has spindled, cut it up; let it wilt, then tie it into bundles and shock it up as you do cornstalks which you have cut in the usual way and let them stand until dry. It would not be strange if you had six tons of fodder per acre when they were sufficiently dry to put into the barn. This will be twelve tons (from two acres.) Now, to winter one hundred sheep you ought to have twenty tons of fodder. You have got twelve of them and want eight more, or four tons from each acre—The turnips ought to produce this amount. Let us see. Allowing a bushel of turnips to weigh 60 lbs., in order to have four tons on an acre you should raise 233⅓ bushels.* Will not your land produce this amount after taking away the Indian corn crop?

So you will have your twenty tons of food from two acres. But will the sheep eat the cornstalks? —Yes, we have tried that. Just run the stalks through a straw-cutter and feed them out to the sheep, and they will eat them all up. We have tried it, and several others have tried it. Then run your turnips through a vegetable cutter, and they will eat them all up clean. The sheep should be young and hearty and have good teeth. Who will try the experiment this year? We are bound to, for one.—*Maine Farmer.*

*This calculation is a very small one, as 25 tons, or 933 1-3 tons of turnips have been grown on an acre.

From the Western Horticultural Review.

MACLAURA HEDGES.

My object in this article is to meet some objections to the Osage Orange Plant itself, inasmuch as my experience tells me that there is no known plant so peculiarly adapted to the purpose, and so valuable to our Agricultural interests. Its surprising properties are no longer a problem. Some writers are yet disposed to class it among the 'humbugs,' and many doubt its utility, but amongst them all you will not probably find much, if any experience. If rightly managed it makes the best and cheapest fence in the world without any exception whatever.

Believing then as I do in the extraordinary properties of the Osage Orange (Maclaura) for making Live Fences, I will state what I believe the best mode of cultivation and management, in as few and plain words as practicable, so as to be understood by the inexperienced—with the hope that all interested persons may practice, and enjoy its benefits.

In order then to make the seed vegetate surely and quickly, they require to be soaked a long time in warm water—usually three, four or five days, but always until they are very much swollen, and partially sprouted. The water should be kept warm all the time.

The nursery should be located with care. It should be a rich sandy loam. If you have none such—prepare the best spot you have, by deep and thorough cultivation, mixed with well rotted manure, if not otherwise rich enough—making the drills about a foot apart, and before dropping the seed send to the woods and get some of the richest and sandiest mould you can procure,—drop the seed, and cover with the woods mould an inch or an inch and a half deep. If the seed are well soaked—the ground clear and strong, they will make their appearance before the weeds and grass will interfere with them. So soon as they are well up, the greatest care will be necessary to avoid the labor of hoeing and weeding, which can only be done by mulching well with leaves, cut straw, saw dust, or tan bark. I name the mulching material in the rotation I think they answer best. The whole nursery should be covered, except only the plants; and put on thick enough to prevent the grass and weeds from appearing; by doing so all further labor will be avoided.

They are better not to be planted too early in the Spring—the middle of May is soon enough.

The next spring they are ready for setting in the Hedge—the ground for which should have been well prepared the previous fall, by subsoiling, and manuring if necessary, and again in the *very early* Spring ploughed and harrowed and rolled repeatedly till completely pulverised—then drive the stakes, —lay the line and spade the trenches. More care is necessary in *taking up* plants to insure their growth, than is usually observed; and more with this, as it is desirable that every one should grow. The tops may be cut off to six inches and the roots pruned proportionally. Set the plants in a double row, six inches apart, diagonally—thus*******—a foot apart in each row, making them equal to six inches in a row. As soon as planted mulch *deeply* with leaves, straw, saw dust, or tan bark, and they will want no further attention until the next spring, at which time, the pruning commences, and you begin by cutting all off within an inch of the ground —in the middle of June cut all the tops again to within four inches of the former cutting—the next Spring cut to within five inches of the preceding, and again the middle of June to within six inches, and so continue cutting each Spring and June, increasing the distance an inch each time, till the Hedge is high enough. By this means you thicken the hedge perfectly all the way up, and when grown it will require the less pruning from there being no large stalks. By pruning the tops only while growing, the side branches become the stronger; they can afterwards be pruned and thickened, till it may be made impenetrable to a bird. The mulching may require some renewing the second year, but afterwards the shade of the Hedge will prevent the interference of the grass and weeds.

The plants should never be set further apart than I have recommended above—particularly in strong soil, as the further apart they are set the stronger they will grow, and create so much more pruning after the Hedge is grown, or otherwise be objectionably high. Neither will the roots extend so far when closely set.

The Hedge should be fully protected from stock for the first two years. Moles often burrow under the Hedge, destroying the roots—to remedy this, make the ground 'dishing' where the plants are set two or three inches lower than the sides, which is found effectual, and the plants flourish better.

The pruning may be made a comparatively small job, by using a strong knife for the purpose about two feet long. A common grass-hook answers pretty well, and some labor may be avoided by pruning in the fall, before the wood becomes hard, in place of the spring. The plant bears it so well, that there is no danger.

The 'plashing,' 'plaiting,' or 'interlacing,' when rightly done, may make a perfect fence, and quite ornamental—particularly while young—but it is expensive; and for common purposes, I would not recommend it further than to stop a gap.

I am persuaded that the plant may be used much farther north than has been admitted. For the first two or three years the limbs will be severely nipped by the frost, but not to the injury of the fence.

Respectfully, WILLIAM NEFF.

THE JOINT WORM CONVENTION.—This convention was held at Warrenton, Va., last month. Only six counties of the State were represented.—Resolutions were adopted recommending early sowing, guano and other means calculated to push forward the growth of the wheat as fast as possible, and above all a universal destruction of all the stubble by fire, in the latter part of winter or early spring, as well as every particle of straw remaining unconsumed by the stock. A committee was also appointed to prepare a memorial to the treaty-making authorities of our government, with a view to some action on their part in the way of holding out inducements to the Peruvians to reduce the price of that important article, guano.

TO SELECT GOOD COWS.—Of all marks for ascertaining good cows, (says MAGNE,) the best are afforded by the blood vessels. If the veins which surround the udder are large, winding and varicose, (dilated at intervals,) they show the glands receive much blood, and, consequently, that their functions are active, and that the milk is abundant. Good milking breeds are distinghished by a soft and supple skin, and by tissues rather relaxed than rigid.

AMERICAN FARMER.

BALTIMORE, AUGUST 1, 1854.

TERMS OF THE AMERICAN FARMER.

$1 per annum, in advance; 6 copies for $5; 12 copies for $10; 30 copies for $20.

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Address, SAMUEL SANDS, Publisher,
At the *State Agricultural Society Rooms*, No. 128 Baltimore st. over the "American Office," 5th door from North-st.

THE CATTLE SHOW

And Agricultural & Horticultural Exhibition

Of the Md. State Agricultural Society,

Will be held at the Show Grounds on N. Charles street extended, on TUESDAY, WEDNESDAY, THURSDAY and FRIDAY, *October* 3d, 4th, 5th and 6th, 1854.

This exhibition, it is expected, will far exceed any that has preceded it in this State, and as the time has been changed from the *last* to the FIRST week in October, more favorable weather may be anticipated than has been enjoyed on some occasions heretofore.

The rules and regulations, with the list of premiums, have been published, and can be had of the Secretary, on application at the Society's Hall.

The Annual Meeting of the Society will take place on Monday evening, the 2nd October.

We hope there is no necessity for an appeal to the farmers and planters of Maryland to be up and adoing to present a bold front on the occasion.—There will be many competitors from other states, and a spirited contest is anticipated. Our location for a Show of this kind, is unsurpassed by any other State, and the evidences we have heretofore had of the public spirit of our people, leave no room to doubt of their being well represented on the coming occasion.

ESSAY ON TOBACCO.—We present in the present number, an Essay on the culture of Tobacco, by Col. *W. W. W. Bowie*, of Prince George's Co. Md. We consider it an able, plain, and extremely valuable paper upon the culture of this great staple of Maryland and Virginia, and we feel some pride in being the medium through which it is presented to the public. It was prepared for the Prize of $100, offered by Mr. d'Arrietar, but for reasons assigned by that gentleman, heretofore published, the prize was not awarded to either of the competitors. By permission of the writers of some of them, they will be published in our journal.

BREADSTUFFS.—At this season of the year, there is generally a depression in the grain market, as farmers directly after harvest, push their crops into market, at a season when business is generally dull; but there are various causes to induce the belief, that good prices must be maintained during the ensuing year, even should the war in Europe be brought to a close, an event we think not likely to take place very speedily—In this country, notwithstanding the increased amount seeded, the crop will not be more, and probably will be less than an average one—caused by rust, fly, scab, worm, winter killing, and other casualties. In England and France, tho' the weather was very favorable at last accounts, yet a single day's change may be as destructive to the hopes of the farmers there, as it has been to those this side of the water—up to about the 10th of June, the prospect was seldom better in the middle states, for an immense yield, but a change then came over the prospect, and few have probably realized more than two-thirds to three fourths of an average crop, and that of much inferior quality—But in the countries named above, we learn that the seed sown was to a considerable extent unsound, and the weather in the spring unfavorable, causes which will tend to diminish the product.

The stocks on hand in the U. S. have been pretty well exhausted, and even should the present crop turn out better than can be reasonably anticipated, still the supply for home consumption and foreign shipment will absorb the whole of it.

The "U. S. Economist," in commenting upon this subject, remarks, that—"In 1847 the quantities of Wheat and Flour that came forward on the opening of the canals, were so large as to break prices, and cause a great increase in the exports to Great Britain, helping to break prices there. This year the exports of Flour, in June, were only 71,966 against 342,080 in the same month of 1847; of Wheat 700,000 bushels less, and Corn 1,100,000 bushels less. The exports of United States in Flour and Wheat, up to the end of March, exceed those of the same time in 1847 by 8,300,000 bushels; during the three months, ending with June, they have been 2,500,000 bushels less than in 1847, showing the great exhaustion of the crops through the winter months. The experience of 1847 also showed that the high prices which ranged in those years stimulated so great a production as to cause prices to fall to an average lower than for many previous years. Those high prices were a great benefit to the Russian grain countries, which this year, by reason of war, cannot be influenced by them."

☞Since the above was in type, we have received the following from the London Shipping and Mercantile Gazette, of the 14th July, received by a late steamer:

"Rain almost daily, and a low range of temperature, is certainly not what is needed at this period of the year for the corn crops; and though there may be thus far no appearance of injury, we much fear that, sooner or later, it may be discovered that the unseasonable weather has not been without its effects.

"What we most apprehend is blight and mildew, and we shall not be surprised to hear complaints before many weeks pass over, of symptoms of these defects. That the harvest will be ten days or a fortnight later than in ordinary years, is certain; and this alone is a matter of serious importance; for, in the first place, this will render it necessary to provide for the consumption out of old stocks longer than was calculated on, and secondly, a late harvest is proverbially attended with extra risk.

"Stocks of old wheat, indeed of all descriptions of grain, are unquestionably reduced into a very narrow compass, not only in this country, but in all parts of the world—Russia alone excepted. The harvest must inevitably be late, all over the North of Europe, and to say the least, the weather lately experienced cannot be deemed propitious."

MESSRS. SINCLAIR & CO'S. AGRICULTURAL ESTABLISHMENT.—In our last, in noticing the removal of Messrs. Whitman & Co. to their new warehouse on Exchange Place, we gave a brief sketch of the various manufactures to which their operations extended; and at the same time noted the fact, that extensive as were their arrangements and facilities for the supply of the farming and planting interests with every implement and machine necessary for their purposes, it was only one of the establishments of the kind in this city—and that the business in this line was carried on, probably on a more extensive scale, than in any other city in the Union. The editor of the "American" of this city, has recently visited the establishment of Messrs. R. Sinclair & Co. on Light street, (one of the oldest establishments of the kind in the U. S.) and from his report we gather the following details, viz: "The factory covers an area of 19,650 square feet, and is five stories high, divided into departments as follows: Machinery, blacksmiths, moulding, carpenter and finishing. Every portion of the building is thoroughly fire proof, being furnished with plate iron doors and stone sills." Almost every article required by the farming community, is manufactured here, and the character which this old established house has maintained for the excellence of its productions, has caused a regular extension of its operations, and it now embraces the large area noted above, in the very heart of our city. The entire manufacturing department is worked under the supervision of one of the proprietors, Mr. Maynard, Mr. Sinclair taking charge of the general business of the establishment.

"There are constantly engaged in the factory one hundred and twenty mechanics, distributed among the several departments. There are consumed annually in the factory, three hundred tons of cast and one hundred and seventy tons of wrought iron, four hundred thousand feet of lumber, four hundred and fifty tons of anthracite, two hundred and seventy-five tons of bituminous, and twenty-four hundred bushels of charcoal. The products of the factory for the past year, up to the first of the present month, were 200 threshing machines, 150 horse powers, 200 wheat fans, 500 corn-shellers, 30 cider mills and presses, 600 straw-cutters, 4,000 ploughs, 800 cultivators, 300 harrows, 12 revolving cob-crushers, 100 seed drills, 400 gang ploughs, 50 clod crushers, 50 revolving screw crushers, 25 lime spreaders, 50 horse power corn mills, 200 corn drills, 50 hand seed drills, 150 corn and cob crushers, 75 homony mills, 50 vegetable cultivators, 25 garden engines, 700 grain cradles, 75 revolving horse rakes, 200 chain pumps, 150 churns, 200 sausage-cutters and stuffers, 50 agricultural furnaces, besides an innumerable number of smaller implements. Most of this large amount is carried to the southern market, and a good trade is now springing up with the west. Such establishments are the life and heart of any populous community, and we trespass not beyond the bounds of truth, when we say, that in this department of industrial life, Baltimore has no superior in the country, either in point of artistic skill or the perfection of her manufactures."

CORRECTION.—In a part of our impression in this No. on the 54th page, in speaking of the improvement of a farm in Va. the quantity raised of Oats, is stated at so many bbls.; it should be *pounds*.

☞Also, page 46, in note, instead of Tons read "Bushels."

AN INTERESTING WORK.—Dr. Elwyn, Prest. of the Philadelphia Society for promoting Agriculture, has recently published a pamphlet copy of the minutes of that Society from its first institution in 1785 to March 1810, which he is generously circulating among the county agricultural societies of Pennsylvania, and elsewhere—We have been favored with a copy of the work, and find in it much valuable and interesting matter. A list is given of the members during the period designated, and among them we find a goodly number of our Maryland farmers, as honorary members—names as familiar as household words, in the annals of farming in this state—from whom emanated some of the most valuable papers, preserved in the "Transactions" of the Society. Have their descendants degenerated, that we so seldom are favored with able reports, or essays on a subject of more direct interest to the human family than any other? It was recently remarked to us by a gentleman of an adjoining state, that most of the communications and essays published in our journal were from parties in other States, and astonishment was expressed that so little ability or inclination was manifested by Marylanders, to add to the general stock of knowledge in this enquiring age—We fear we shall have to admit that there is much truth in these reflections upon our farmers and planters—although there are most honorable exceptions, as our pages for this month will show—but we desire in an emphatic manner to call attention to the subject, and to solicit such action as will secure us from such reflections upon our talents or public spirit in the future.

GUANO.—There is no change in the price of this article—the supply at this time is very ample, and we hope will continue so—but our past experience has shown, that there is no certainty about it. It was supposed last summer that there would be a sufficient supply for fall use, but it was found that although wheat was then but little over $1 per bus., the demand was manyfold greater than the supply The present price of grain, and the prospect of its continuance, will no doubt induce a greater breadth of land to be sown in wheat than in any former year, and the consequent increased demand for Guano will be proportionately great. The prospect for a full supply was never better than at present; yet we would earnestly advise those intending to use it, to get their quota as early as they conveniently can; for altho' the supply may be here, the delays of delivery (so sadly experienced by many last Fall,) when there is so great a rush for it at the last moment, may prevent its being received in time for the most effective use—and the general experience this season has been, that those who were delayed in getting in their seed last fall, and whose harvest has been the latest, have suffered the most by the rust, scab, &c.

LAND SURVEYING.—We would call attention to the advertisement of Mr. Wm. Sides, on another page—who offers his services as a surveyor of land, and to lay off villages, towns, cemeteries, &c.—The references he gives are of the most respectable character, by whom he has been employed—and we are assured by one of them, Mr. Calvert, the President of our Society, that Mr. Sides has not only the ability to render satisfaction by his talents in his profession, but that his charges are reasonable, and that he is worthy of the patronage of the public.

FARMER PREMIUM LIST.

As heretofore, the publisher of the AMERICAN FARMER, offers his annual list of premiums for the largest lists of subscribers for the volume which commenced with the July No.—The lists to be made up to the hour of the annual meeting of the State Society, viz: 8 o'clock on Monday, the 2d October. The cash must be paid for all subscriptions, that can be counted up to that time. The premiums are:

For the largest list,		$50
"	2d do	30
"	3d do	20
"	4th do	15

We hope an animated contest will take place for these premiums.

Prince George's Co. Cattle Show.—The Agricultural Society of this county, offers a fine list of premiums for competition at its exhibition to be held at Upper-Marlboro, on the 25th and 26th of November next. An agricultural dinner is also to be given on the occasion.

VIRGINIA AND NORTH CAROLINA AGRICULTURAL SOCIETY.

We noticed in our last the formation of a Society at Petersburg, Va. for the encouragement of Agriculture in the section of Virginia and North Carolina, of which Petersburg is the great central mart. The name of the Society is "The South Side Union Agricultural Society of Va. and N. C." We have since learnt that the Society is being placed on a very firm footing, and the prospects are highly flattering for a wide field of usefulness—Several enthusiastic meetings have been held, and fifty mercantile firms in Petersburg, have subscribed $5,000, to be expended in premiums, &c. and the corporate authorities of Petersburg $5,000 more for the fitting up of the necessary buildings, and have furnished the grounds required for the purpose—thus placing $10,000 at once at the disposal of the Society—*James C. Bruce*, Esq. of Halifax Co. Va. was elected President, and a Vice President was chosen for each of the counties of North Carolina and Virginia, which are expected to co-operate in the good work—A corresponding and a Recording Secretary, Treasurer, and Travelling Agent were also appointed—Most of the officers elected have signified their acceptance of the appointments conferred on them. The time of holding the Fair it is expected will be the last week in October, to come in after the Carolina State Fair, and the week before the Va. State Show. It has been supposed that this Society was gotten up in opposition to the State societies in these states—but we learn that this is entirely without foundation—it is independent of those societies, but will cordially co-operate with them. We are in hopes that a good attendance from our state can be secured at this Exhibition this fall—The increasing interest in behalf of agriculture in the eastern section of North Carolina, and throughout all that portion of Virginia, with which the Union Society is particularly identified, affords a good opportunity to introduce our fine stock and improved machinery among a people proverbial for their liberality and public spirit.

A list of premiums will be shortly published—which we are assured will be on a very liberal scale.

Price of Wool.—Whilst every other product has more than maintained its price during the present year, that of Wool has shown a downward tendency—It is argued that the tightness of the money market is one cause of this, but that the main reason is to be found in the fact, that last year prices were inflated by the speculative demand for the clips, carrying them up to a higher point than the business could reasonably warrant, and that a reaction was the necessary consequence. The "Wool Grower," an excellent journal devoted to Wool growing, maintains that former quotations, will be realized, from the fact, "that the demand for wool throughout the globe, has entirely outstripped its production, and but for the fact of the large adulteration of woollen fabrics by cotton, flax cotton, and old rags, the manufacturers would not be able to keep their mills in operation upon the wool now annually produced."

Butter from an Ayrshire Yearling.—An Ayrshire Heifer belonging to the herd of E. P. Prentice, Esq. of Mount Hope, only seventeen months and three days old, and weighing herself 550 lbs. produced, during the last week in May, 9¾ lbs. butter. She had nothing but the ordinary grass feed of the other cattle.

For Hoven or Bloat, caused by eating clover, give a tea-cup half full of saleratus dissolved in a pint of warm water, and turned down a cow from a junk bottle. Perhaps an ox might need a larger dose. A few spoonfuls of tar, put in the throat by the aid of a smooth stick, will also give relief.

Cure for Scratches.—Mix one ounce of chloride of lime and one quart of water; wash the parts well; after which apply white lead ground in oil. This has never failed to cure.

The Red Weevil—Destruction of Wheat.—A friend in Western Virginia has sent us four heads of wheat, the grains of which have been destroyed by the terrible pest which has swept away many thousands of acres of wheat which bid fair to produce a most excellent crop, up to the time of the formation of the berry, when it is attacked by this little insignificant insect, which feeds upon the milk of the grain to that degree that scarcely a single perfect head can be found in a fifty acre field. Western Pennsylvania, Western Virginia, and the north part of Ohio, are the regions most affected with the dreadful scourge this season. It is variously called, red weevil, milk weevil, wheat midge, field weevil, et cetera. On opening the husk of the kernels of the sample sent us, we find the grain entirely wanting, and in its place from one to ten of its destroyers, apparently in the crysalis state, not quite one-eighth of an inch long, and the fiftieth part of an inch in diameter, of a pale red color, without any sign of life, yet they have destroyed the staff of life to a degree we fear that will affect all who eat bread, notwithstanding the good crops in many other parts of the United States.

There is a general concurrence in all our sources of information that this terrible pest of the farm has been more destructive this year than in any previous one, and that the region most affected is that indicated above in Pennsylvania, Ohio and Virginia. We may be truly thankful that there is a fair crop of wheat for the whole United States, and that our great staple, Indian corn, is very promising everywhere, and so far, potatoes seem to be very healthy.—*N. Y. Tribune.*

WIRE GRASS—COUCH, QUACK, OR WHEAT GRASS.

Baltimore Co. July 21, 1854.

To the Editor of the American Farmer.

My attention has been attracted by a communication from Judge Christian, of Williamsburg, to Mr. Ruffin, published in the last Farmer, upon wheat he calls the Wire Grass.

My object in writing is to endeavor to obtain a description of the grass alluded to, believing it to be the same which I unfortunately have been too familiarly acquainted under the name of Couch Grass, and which is proving to be a serious pest on many of the best farms in this county.

It appears to be known in England as the Couch quack or wheat grass, the latter names no doubt having been obtained from its near resemblance before heading to the wheat plant, it being difficult for an unpracticed eye to distinguish between them; will you or some of your readers be so good as to give the desired information, as no doubt many of your subscribers, who like myself are suffering from it, will be rejoiced to find that there is a remedy for what has seemed to be considered an incurable evil. Yours, A SUBSCRIBER.

[We hope that a response to the above, will be made by Judge Christian, or any other farmer, capable of giving the desired information.—*Ed. Far.*]

SMUT IN WHEAT.

Oak-Lawn, Co. Buckingham, July 19, 1854.

To the Editor of the American Farmer.

Dear Sir:—In looking over the July No. of the Farmer, I found a communication from Woodsville of May 15th, headed "Black Heads, &c. in Wheat," and signed R. S. H.

I propose to notice that part of the communication, only, relating to smut. I am induced to do this, believing as I do, that R. S. H. is in error, in regard to the powder of the smut head, producing smut in the succeeding crop of wheat What causes the smut I am not prepared to say, but I think it is owing almost entirely to the season.

This I do know—my Father, who was a cultivator of wheat, to a considerable quantity, had two crops at different periods of his life, with something like ¼ smut; that the wheat was thereby rendered unfit for flour, and that he continued to sow the same wheat, without soaks, or washes of any kind, the smut entirely disappearing. I will go further—I too have had smut in my wheat crops several times, and knowing as I did, that smut had nothing to do with producing its like in the succeeding crop, I proceeded to fan my wheat for seed in the usual way for seeding, without any other preparation, and have made as good wheat as my neighbors, who used soaks, washes, &c. Last year my crop of wheat had, I think, nearly 1-6 smut heads; from this I prepared and seeded something over 300 bushels, without any soaks or washes of any kind. This harvest I did not find in the entire crop, a dozen heads of smut,—some of this year's crop was reaped from the very land having most smut last year. Yours,

J. M. P.

We give the following from another correspondent, who takes an exactly opposite view of the subject:

Callands, Pittsylvania Co. Va. July 12, 1854.

To the Editor of the American Farmer.

Dear Sir:—I give my short experience on the growth of smut wheat. Last fall I had some land nicely prepared, dry and fine, for sowing, and got of one of my neighbors a new kind to sow, and just when I was ready to have it commenced, I examined the wheat and found some grains of smut in it, and came almost to the conclusion that I would not sow it, and then thinking and believing that those smut grains could not come up, I determined to sow it, and try an experiment. I sowed it with guano, and it came up and grew finely for the season, and I saw nothing wrong until after it headed out, and the grain was in the dough state, at which time I found some black bugs crawling on some of the heads of wheat; I examined them closely, and found the grains a little bruised, but no injury done to them; in two or three days I went again to examine my wheat, and I found them busily engaged on the heads of wheat in the mashes, and on examining, I found every grain on the head punctured, and the grain turned to smut. They are a little small bug, or rather there are two kinds, one as black as jet, resembling the lady bug in shape only, not one fourth the size; the other kind are a little grayish black, resembling the black weavel; in each grain they deposit three eggs, and it acts as a covering or protection for the eggs, and by sowing, the smut grains are covered up in the earth, and the next spring the eggs hatch, and they mature just at the time of the wheat filling, at which they are ready to deposit their eggs again, so if you wish to avoid smut, you must clean your wheat of all the smut, or kill the eggs before sowing. This is my short experience on this subject, never having any smut in my wheat until the present year. These are my views on this subject, and would be much pleased for you to give yours more fully, and much oblige, Yours, very respectfully,

JAMES A. MITCHELL.

HOVEN IN CATTLE.—Cattle sometimes die from having their stomachs bloated with wind, caused by eating clover when wet with dew or rain. In this case, take a stick about the thickness of a man's wrist, and put it in the animal's mouth like a bridle bit, and keep it there by a string put over the head and tied to the stick on each side of the mouth. As the animal will bite and bite on this stick, it opens the gullet, the wind escapes from the stomach, and the brute is relieved. This remedy is given by a correspondent of the *Ohio Cultivator*, who dates from Morrow county, from whence great number of fat cattle are sent to eastern markets.

TAIL SICKNESS.—The Edinburgh *Journal of Agriculture* has an article in explanation of the origin of the notion of *tail sickness* in horned cattle, and comes to the conclusion that there is no such disease, and that mutilating the tails of cattle is both inhuman and injurious.

Messrs. Riddle, Good, Gerrit Smith, Ashe, Elliott, Troust, Sollers, of the House of Representatives, have been appointed a special committee on the memorial of two thousand citizens of Delaware, praying the Government to effect some arrangement with Peru, by which, for a just and proper equivalent, the Peruvian Government will either cede to the United States one of the guano Islands, or by removing the existing restriction on American vessels, engaged in the guano trade, place the trade in that article on a more just and liberal commercial basis.

HUSSEY'S REAPER.—We have been shown a letter from Carter Braxton, Esq. near Richmond, Va., addressed to Mr. Hussey, from which we copy the following:

"Mr. Hussey, there can be no doubt but you would be pleased to hear from the operations of the Reapers this season, and I think it will be useful to yourself, and the community, that you should know the result. I have just finished harvesting about 330 acres of ground, the heaviest crop of straw I ever harvested; on the 330 acres there are 1,940 large shocks, which would yield, were the grain full and plump, fully 1½ bushels to the shock. Of the 330, two of your Reapers cut down about 275 acres in less than 12 days—about 12 acres per diem to a reaper; some days they cut at least 16 acres each. * * * * * The last reaper you sent me commenced and ended without stopping a moment." * * Mr. Braxton says further, that from the fact of his having an entire extra cutter, he never stopped for one that was out of order; *indeed*, he says, "what was wanted to them, was almost too trifling to be named." Mr. Braxton says, "in the greatest portion of the wheat harvest this year in my field, a cradle could not cut an acre in a day." * "I have understood that all of your reapers in this vicinity, have given entire satisfaction this season. Mr. ————'s was introduced again in a new form, into this neighborhood, and its friends puffed it off with very great enthusiasm, and proclaimed it now to be a perfect machine, but only a few days elapsed before it was trumpeted far and near, that the road was filled with vehicles, carrying the broken parts backward and forward to Richmond for repairs. * * It delivers the wheat at the side, which is the reason small farmers prefer it, and which I consider its most objectionable feature. * * Your Reaper had as rough ground to cut over this year as ever a reaper traversed—deep water furrows, and cross furrows, and I had to use them on land a little stumpy, but they would run full butt against them without the slightest injury—raise them over, and you would hear the clatter of the crank as soon as they touched the ground."

We have had the perusal of another letter, on the same subject, from Jonathan Ellison, of Chesapeake city, in this state, in which he writes: "I have just finished my wheat yesterday with my new machine, 77 acres of the largest growth of straw I ever raised; it was one of the worst looking fields to undertake I ever saw, being twisted about in every direction; we cut it down in 3½ days."

[*Mr. J. Duckett, of Baltimore County, informs us, that but for Hussey's Reaper, it seemed impossible for him to have cut his—the straw was so large and twisted.—Ed.]

Tennessee.—A friend in Tennessee, who has taken an interest in our journal, in ordering copies for new subscribers, informs us that the "last legislature established an agricultural Bureau, which I think will have a tendency to invite the farming community to greater exertions, and will also create, as I think, a thirst for acquiring agricultural reading."

TURNIP SEED.—We have received from the Patent Office a package of several kinds of Turnip seed, of English varieties, which we will distribute to those applying.

FLORAL DEPARTMENT.

Prepared by John Feast, Florist, 279 Lexington st. for the American Farmer.

The heat during the past month has been unusually intense with but little rain, which is calculated to destroy in some measure the luxuriance of most plants if not properly attended to, and it has required more than usual care even to keep many plants alive. Such as have been planted out, and those in pots, need constant attention as to watering, which if not strictly watched will at times get more water than needed, which makes the plants sickly, and is soon observed by the foliage turning yellow and becoming soft; as soon as this takes place, turn the plants out of the pots and shake off all the soil from the roots, and repot in fresh soil suitable to the plant, always giving good drainage. It is easy to detect this before the plant becomes sickly by the water standing in the pot, and not being absorbed; this is caused mostly by bad drainage, which is too frequently the case, if not in the hands of a proper person in charge.

Geraniums should be cut down; put in cuttings for a fresh stock, and some seed in flat pots or boxes, in a light compost; also sow seed of *Chinese Primroses* if you want flowering plants for next winter.

Camellias inarch, if not already done, and keep them well supplied with water; also syringe at least once a day, this keeps the plants in a healthy condition.

Gloxineas—Achemenes—Keep these shaded from the bright sun-shine; be careful in watering to give enough, but not too much—syringe them sometimes; in the evening is the best time.

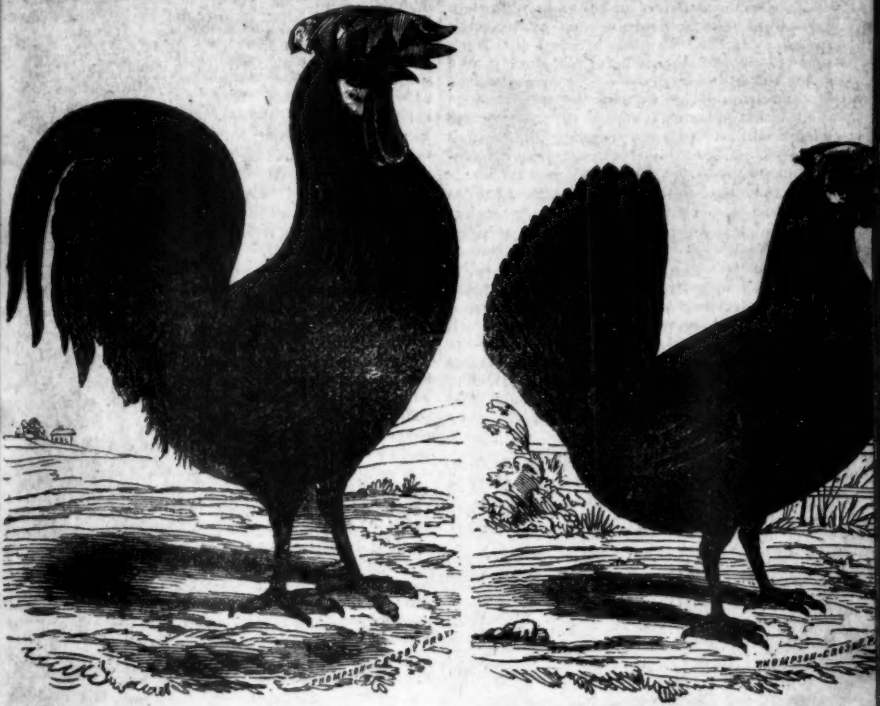
There is not much of importance to be done this month, but the keeping everything in good order—the borders clean, and attending to the watering of all plants in pots, and those planted in the borders.

Pennsylvania State Agricultural Society.—We have received a bound volume of nearly 500 pages, being the "First Annual Report of the Transactions of the Pennsylvania State Agricultural Society"—comprising not only the proceedings, addresses, lists of premiums, and awards of the State Society, but also of the several county societies of the State; it is gotten up pretty much after the style of the Transactions of the N. Y. State Society, and thus embraces a general history of the agricultural affairs of Pennsylvania for the time being—The time will arrive, we hope, when our State Society will be able to follow such a laudable example.

LARGE YIELD OF WOOL.—Messrs. Mullikin and Jefferson, of Danville, Ills., have sheared thirty-three sheep, which yielded 313¼ pounds of fine wool. The largest fleece was taken from an imported French buck, weighing 27¼ lbs. Five lambs, 14 months old, yielded fleeces weighing, respectively, 18½, 17½, 16¼, 15, and 13½ lbs. They say it cannot be beaten in the State, when the age of the sheep is considered, fourteen of them being but little over a year old.

☞Alexander R. Boteler, Esq., of Jefferson co. Va., has accepted an invitation, extended to him by the Washington County Agricultural and Mechanical Association, to deliver an address at the Fair, to be held on the 6th, 7th and 8th of September next, near Hagerstown.

BLACK SPANISH FOWLS.



The above cuts represent a pair of Black Spanish Fowls, the property of Mr. Joseph P. Childs, of Woonsocket, R. I. The stock of Mr. C. were exhibited at the New York State Fair, held at Albany in February last, and also at the National Poultry Exhibition, held at Barnum's, New York, and we learn were very much admired. Fanciers have paid as high as $30 per pair for these fowls.

SALE OF FAMOUS HORSES.—Four celebrated racers were sold at auction in N. York last month, viz: *Mac* was struck off at $4,100, to Mr. Mann, of Baltimore; *Tacony* was sold for $3,700, to Mr. J. G. Bevens, of New-York; *Frank Forrester* was sold to Mr. Mann also, who paid $2,350. *Barnum* was withdrawn from the auction, he having been sold at private sale during the morning, for the sum of $2,850.

FLAX CULTURE.—The *Louisville Journal* says, a much larger amount of land has been given to the cultivation of flax this spring, than in any former year:—"In Ohio, there are thirteen extensive oil mills; in Kentucky, Indiana and Missouri, there are five more; in all eighteen mills that we know of, which manufacture nearly 1,000,000 bushels of flaxseed annually, and are capable of working double that quantity."

Talbot Co. Cattle Show.—The Societies of Talbot County have determined to hold a Show this fall—time not yet designated—the rules and regulations and list of premiums will be similar to those of previous shows, and will be published in due time.

COTSWOLD SHEEP.—A correspondent of the *Country Gentleman* tells of a small but rather profitable flock. In April, 1853, he bought two half-bred Cotswold ewes, which in May brought forth four lambs, worth at five months old, $5 each; as for this price he sold one and could have sold others. In April, 1854, he had four lambs more, so now he has nine in all—five of them with very heavy fleeces of long, medium, but not coarse wool. He thinks the Cotswolds the most profitable breed of sheep.

Agricultural Exhibition at Fredericksburg, Va.—The spirited "Rappahnnock River Agricultural Society," is to hold its annual exhibition at Fredericksburg on the 8th to the 11th November next. A most liberal feeling is manifested by the citizens of Fredericksburg, in sustaining this society.

Montgomery Co. Cattle Show.—The annual exhibition will be held at Rockville on the 14th and 15th Sept. next. $450 in premiums are to be awarded.

We have tried many breeds and varieties of chickens, but never found any equal to the Game. —*Ed. Am. Farmer.*

IMPROVEMENT.—We have a pressing invitation from a subscriber at Petersburg, Va. to be present at the Exhibition to be held the coming fall, under the auspices of the "The South Side Union Agricultural Society of Va. and N. Carolina." We are promised a hearty welcome, which we have no doubt we would receive from the whole souled people of that quarter. We have many warm friends in all that region of country, and it will give us great pleasure to be present, if circumstances will permit it—Our correspondent remarks:

"I should be glad to see you at my house, 3 miles from the city, and show you some of the practical results of the lessons you have taught me through the Farmer. To give you some idea of the increased productiveness of my farm, I will state, at the hazard of being called a braggart, that 6 years ago, when I purchased the place, say 320 acres, at about $3,200, there was no wheat grown on it, all the best land being in Corn and Oats—no hay—the crop was 45 bbls. Corn, 3,500 bbls. Oats, and 3,000 lbs. Fodder. This year, I estimate, from 1500 to 2000 bushels wheat, corn 250 to 300 bbls. and 50,000 bbls. oats, and any quantity of hay."

IMPORTED COTSWOLD SHEEP.—Hy. Carroll, Esq. has recently imported from England, a yearling Buck and six Ewes, of the Cotswold breed of Sheep, which passed through this city a few weeks ago to his farm in Baltimore County. These sheep were raised by the most eminent breeders in England, and the orders of Mr. C. were for the best, without regard to price—Instead of subjecting them to a tedious voyage in a common packet, they were shipped by steamer, to New York; the most ample arrangements made for their safety and comfort, and a man specially employed to tend them on their passage—so that, when they arrived in this city, they had every appearance of being as fresh and in as good order, as if they had just been taken from the most luxuriant pasture. We feel much gratified that they have arrived safe, and that they will be located so near our city. The buck and ewes are from distinct families. We congratulate the enterprising owner on this addition to his beautiful flock. We doubt very much whether there is a finer flock of sheep, of the same class, in this country, than that now possessed by Mr. Carroll—and with the care which he is so well known to take in their management, he will, in a little time, probably eclipse any of his contemporaries.

IVERSON'S RESCUE GRASS SEED.

We announced in our last, that the Rescue Grass Seed of Mr. Iverson was daily expected, and that those who had engaged it should send for their packages. We subsequently received the seed, and have sent it to parties who have paid for, and directed *here* to send it. We have not received as much seed as there are orders on our list, (including those ordered through Mr. Iverson, to be supplied here)—but Mr. I informs us that an additional quantity can be furnished, if required.

The freight for the seed to this city costs 25 cts. per peck, which must be paid with the cost of the seed, $5, on delivery.

MR. IVERSON'S MODE OF CULTIVATION.

You will cultivate it as follows:—Select dry, amy ground, manure it well; have it ploughed deep and pulverized. Lay off rows 20 inches apart, and drill in the seeds pretty thick, covering them lightly. This should be done early in September. Work it several times the first two months, and keep all Poultry off until it is 8 inches high. The grass should not be cut or grazed the first season, as seed is the object. When the seeds ripen they shed out easily. Strip the heads by hand. Plenty *will escape* for a stand. The seed being gathered, turn the straw under, and sow peas broadcast, covering them lightly with rake or harrow. In the fall save the peas. Let the vines and leaves lie, being excellent manure for the young grass, which will come up early in September, and in November it will be beautiful. With the seed raised and gathered, you will proceed as follows: Prepare the ground as above. Lay off rows 4 feet apart, manure each (if necessary) for a start, drill in peas and grass seeds at your pea-planting time, and cover lightly. The peas (only) will come up. The grass seeds will not until September. When the peas are ready, turn in your fattening hogs. The vines and leaves, as I have said, should be suffered to lie and rot on the surface, being a good coat of manure for the field and young grass, which will be up early in September, and in November it will be ready to receive your stock, and keep them fat through the Winter and Spring. When you see it jointing, remove the stock, and let it go to seed. If you wish to make Hay, cut or mow it while the seeds are in milk. It will grow up rapidly and form its heads and seeds again. When in the same condition, cut and cure as before; so on three or four times. Then let it seed, ripen, and sow them, which being done, turn under the whole and sow your peas. On this plan you may enrich your fields, keep them rich, and get excellent pay in other ways besides.

☞A peck of seed will sow from one-fourth to half an acre." B. V. I.

THE MOUND, HARFORD CO. July 22, 1854.

To the Editor of the American Farmer.

Dear Sir:—Your remarks in reference to the wheat crops of the present year, which appear in last month's "Farmer," are entirely correct, I have no doubt in every particular, and I can vouch for their accuracy so far as the Western States are concerned. Having just returned home from a flying trip to Ohio, Indiana, Michigan and Illinois, and on my return through Canada and New York, and with very few exceptions I did not see a field good for more than ten bushels an acre. The corn crop also, generally speaking, was very backward, owing to the wet, cold spring which prevailed there, as well as with us; the oat and potato crops look very luxuriant, and promise a handsome yield.

During my jaunt, I was very forcibly struck with the truth of the statement, made some time ago by our esteemed friend, C. P. Holcomb, Esq. of Del., in his admirable article published in the "American Farmer," on the Wheat Crop of the United States,—that the region of country in which wheat could be profitably raised, or in other words possessing a soil suitable for its growth, was much more limited in extent than was generally supposed. And judging from my own observation, I am induced to believe there is no better wheat soil in this country, than a large portion of the territory of our own good State of Maryland.

We are suffering very much for the want of rain; our corn, potatoes and pasture grounds are badly in want of a refreshing shower, saying nothing of sweltering humanity.

Very truly, yours, &c.
JNO. CARROLL WALSH.

MARYLAND INSTITUTE.—The Washington Union says:—

"The Secretaries of War and Navy were visited yesterday by a committee of this deservedly popular Institute, consisting of Mr. Thomas Swann, chairman of the committee on exhibition; Mr. J. S. Selby, actuary; and Wm. Prescott Smith, Esq. secretary, in connexion with the annual exhibition in September next, at Baltimore. Every facility will be afforded them, we learn, to enrich their magnificent hall on the occasion, with rare specimens of army and navy manufacture. The rapidly increasing interest manifested in the management, and in the annual exhibition of the Maryland Institute, is highly honorable to the able gentlemen connected with it, and to the State of Maryland herself. The fall exhibition of 1854 will surpass, in usefulness and splendour, all those which have preceded it."

The Institute's Exhibition will be open during the same period of our State Cattle Show, and will be unusually interesting this year.

☞The editor of the Charlottesville Advocate is authorized by Mr. W. C. Rives to say, he having been mentioned as a probable candidate for the office of Governor, "that he has retired from all party and political contests; and while he is most grateful for the partiality that has led to the mention of his name in connection with so high an office, his only ambition now is to fulfil the duties of a good citizen in promoting, to the best of his ability in a private station, those great domestic interests of the State which require the co-operation and united support of the patriotic of all parties."

Mr. Rives will, we have no hesitation in saying, render more solid service to the state, in the operations in which he is now engaged, than he has ever been able to do, in his political life; and few statesmen of our country have had awarded to them a greater meed of praise than he, for purity of character, both public and private, and for abilities of the highest order.

CURE FOR HYDROPHOBIA.—The Newark (N. J.) Advertiser is requested to publish the following, said to be a preventive of hydrophobia, as discovered by a French physician, M. Cossar:

Take two table spoonfuls of fresh chloride of lime, mix with a half pint of water, and with this wash keep the wound constantly bathed, the lotion being frequently renewed. The chloride gas possesses the power of decomposing the tremendous poison, and renders mild and harmless that venom against whose resistless attack the artillery of medical science has been so long directed in vain. It is necessary to add, this wash should be applied as soon as possible after the infliction of the bite. The following is the result of this treatment: From 1810 to 1824, the number of patients admitted into Breslau hospital was 153, of whom only *two* died; 1784 to 1824, into the hospital at Zurich, 224 persons, bitten by different animals, (82 by dogs,) of whom only *four* died.

PERIODICY OF HEAT IN MARES.

The following sensible hints were furnished to the late *American Veterinary Journal*, by Dr. CLEAVELAND, of Vermont.

"I wish to ask your and your readers' attention to one fact in the physiology of the mare, which seems not to be well understood by many who would almost consider themselves insulted if it were hinted to them that they did not 'know all about a horse.'

Probably all know that all mares of the proper age, and at certain seasons of the year, have uneasy turns, or get '*foolish*,' as they say; and that, at such times, they seem unwilling to perform their usual task, either as travellers or as draught horses; that they seem fretful and often ill-tempered, vicious, spiteful, and frequently get a most thorough whipping, because their masters also get 'foolish.'

Now, the simple fact is, that the mare knows more than her master in regard to her then condition, and she is trying to drive into his *foolish* noddle, that, on such days she should be left quiet, and be subject to no labor beyond the most gentle exercise.

If the reason why this course should be pursued in preference to the hard work and whipping which *your* mare has had bestowed upon her at such times, is not not now plain and satisfactory to you, most sapient reader, just inquire of any old matron within the circle of your acquaintance, and she will tell you that I am correct, but, perhaps, 'without a why or wherefore.'

The re-productive organs, in all animals, are intimately connected with the nervous system, and of course exert a vast influence over not only the nerves, but also over the entire body, mind and disposition; and when these organs are deranged or diseased, the entire animal economy must suffer, and be rendered in a greater or less degree unfitted to perform its usual labors. In the female, these organs exercise a still more powerful influence upon the other parts of the system than in the male; and as they are liable to *periodical* derangements or excitements, it becomes obviously necessary to be strictly cautious not to tax the animal's powers of endurance at those periods.

Mares that have been ridden under the saddle, or driven in harness during their periods of heat, and have performed more than their usual amount of labor, are frequently discovered to be covered with perspiration across the loins, while all other parts of the surface are cool and dry; and the hostlers will say that they have been unable to rub those moist spots dry, even after the lapse of many hours; and the next day the mare is observed to drag her hind legs behind her, almost as though her back was broken. Indeed, her back is lame, weak and painful. She urinates with difficulty, and there is evident inflammation of the kidneys, the ovaries, and the uterus.

From slight injuries of this class mares will readily recover, but if they are of too frequent repetition, or the injury be of too grave a character, the chances are, that the animal will be unable, ever after to perform well, and will soon become nervous, irritable and weak, and will be passed from jockey to jockey until she dies—a martyr not to her own '*foolishness*,' for her waywardness at those times are *wise* admonitions to her master, but to the folly of those who *will not* learn to understand nature, because "they know all about their horses," and do not wish to be instructed by any *book doctor*."

FRENCH MERINO BUCK "MATCHLESS."

I send you a cut of our French buck "Matchless," with a short description of him,

"Matchless" was selected by myself from the flock of Mr. Cugnot, in April, 1851. He is now 4 years old, and weighs 280 lbs. His wool is thick, fine and good length. His stock is of the highest order, and he is considered by all who see him to be one of the best of his kind. I have lately sent a buck lamb, sired by him, to Dr. Wm. L. Wight, of Dover Mills, Va. which is a fair specimen of his stock. GEO. CAMPBELL.

West Westminster, Vt., April 22, 1853.

☞A circular from Dr. Reese, the Inspector of Guano, will be found on a subsequent page. Some of the views taken by the Inspector, in his remarks at the close of his circular are novel, and contrary to the generally received opinions of those considered most familiar with the subject. But still we do not wish to be considered as controverting them.

Massachusetts.—We are indebted to Eben Wright, Esq. for a copy of the Transactions of the Norfolk Agricultural Society, containing a large amount of interesting farming matter—from Simon Brown, Esq. the Transactions of the Middlesex Co. Society, a work similar to the above—and from Charles L. Flint, his valuable Report, as Secretary of the Board of Agriculture of Massachusetts.

We have also a copy of the Journal of the U. S. Agricultural Society for 1853, for which Mr. King, he editor, will please accept our thanks.

CHARCOAL AND SALT FOR SHEEP.

A CONTRIBUTOR to the North-western Cultivator, writes—"It is generally conceded that wet pasture are unfavorable to the health of sheep. I have kept a flock for four years in a pasture of this description—for the first two years with unfavorable results. My sheep were unhealthy, and many of them died. I ascribed it to the wetness of my pasture. Upon the recommendation of an old farmer, I gave the sheep charcoal mixed with salt. The beneficial effects of the mixture were soon apparent. My sheep presented a more healthful appearance. I have continued the treatment, and the animals have continued to thrive. I suppose the medicinal qualities of this mixture consist in the disinfecting property of the charcoal." And in the invaluable tonic and alterative properties of the salt, we may add; for, like many other remedial agents, this article when given in small doses, augment the digestive functions. In larger doses it is cathartic.—*American Veterinary Journal.*

MILK AND OIL FOR WOOL.—A mixture of milk and oil for preparing wool for spinning, is now used in some of the principal English manufacturing establishments. In the United States, rectified *resin oil* is found to be a valuable substitute for other oils for this purpose. It is afforded at much less expense, is said to answer the purpose equally well, and has less inflammable tendency than some kinds.

BREEDS OF CATTLE.

ADAPTATION OF DIFFERENT KINDS TO MILK, BEEF AND LABOR.

At one of the Agricultural Meetings held in Boston, last winter, the subject of the value of the various prominent breeds of cattle, as adapted to different purposes and parts of the country, was discussed in a very interesting manner. SANFORD HOWARD, who has a very extensive knowledge of all stock matters, opened the discussion with a succinct history of the *Domestic Ox*, its origin, kindred, species, different varieties, &c.; displaying a considerable research, and a full acquaintance with the subject. We have not seen the lecture in full, but gather our remarks from condensed reports of the same.

The Origin of the Domestic Ox is lost—it is found nowhere in an original wild state—the so-called wild stocks of several countries being only descendants of ancestors formerly domesticated. The Bison and the Musk Ox are distinct species, and are different from our native cattle, which must have originated on the Eastern Continent.—There are many breeds or varieties of the Domestic Ox, some of which, being of untraceable antiquity, may be called original. Breeds may be classed as *natural* and *artificial*; the peculiar characteristics of the first are the results of natural causes, those of the second are the result of man's interference. Mr. H. instanced the Merino, and Scotch Black-faced sheep, the West Highland and Devon cattle as examples of *natural* breeds; the Leicester and improved Cotswold sheep, the Ayrshire and Short-horn cattle, as examples of *artificial breeds*.

Breeds of cattle should be chosen according to the situation in which they are to be placed, and the purposes for which they are designed. Cattle are wanted for milk, beef and labor. These qualities are somewhat antagonistical, particularly fattening and milking. The *fattening* animal should possess, as much as possible, a rotundity of form, with a broad chest, and an even balance of the fore and hind quarters; whereas the *milker* should be characterized by flatness rather than roundness, and a considerable preponderance of weight in the hind quarters. The animal, too, which has the greatest tendency to fatness, has insufficient muscle and nervous energy for *labor*. Some farmers think a stock should be obtained which will combine all qualities, but this is unreasonable. No farmer expects to get his clothes, shoes, farming utensils, &c. all made by one individual; and on the same principle he should rear stock for particular uses.

Opinions as to the comparative merits of breeds for this section of country, (or this country indeed,) must be in a great degree conjectured, because no adequate experiments have been made in this matter. Different breeds are required for different localities, and we must be guided here, as well as in selections for different purposes, by what is known of their characteristics. On this basis, Mr. Howard submitted the following list as the best he could recommend:

"As Dairy Stock,

1. On poor and rough soils, the *Kerry* breed, indigenous to the mountains of Ireland, and combining remarkable hardiness of constitution, with superior dairy qualities especially for butter.

2. For better soils and milk-selling establishments, the *Ayrshires*.

3. For cities and towns, the *Jerseys*, at the same time testing them by fair trials as to general adaptation.

4. A selection from the *Native* or *common* stock, to be subjected to a systematic course of breeding.

5. Crosses of the *Ayrshire* and *Jersey* with the common stock, the offspring to be kept separate for a sufficient period to ascertain their qualities.

As Fattening Stock of secondary value for the Dairy,—

1. For poor and rough soils and severe climate, the *West Highland Scots*.

2. For somewhat better soil, the *Galloways* and *Devons*.

3. For medium soils, Herefords.

For Laboring Cattle—The *Herefords*, *West Highlands* and *Devons* are excellent draught cattle."

In our climate, owing to the extremes of heat and cold, strength of constitution is an important requisite in cattle that are obliged to undergo more or less exposure at all seasons, and this is one reason why Short-horns have so seldom succeeded in New England. The Western Highland breed is a very hardy one, and fattens as readily the third year as any other variety. In England it is considered the model in the improvement of all other breeds as to form; and on account of these intrinsic properties, Mr. H. advocated their introduction into this country.

"An important principle in reference to the improvement and profit of animals," Mr. H. remarked, "is a proper supply of food and proper shelter. Until due attention is paid to this, it is of but little use to talk of breeds, for although there is a great difference in the natural propensities of animals of the same species, they may be kept so badly that all are unprofitable. Immense loss is annually suffered from insufficient feeding. Every living animal requires a certain amount of food to supply the waste of the system—to keep it in life and health. It is only when the supply is beyond what is necessary to support the waste, that the animal can retain anything in the shape of milk or flesh, or extra muscular exertion. Now if we have a given amount of hay and grain, it may be fed to so many animals—or the time of feeding may be so prolonged—that it will all be consumed in keeping up the daily waste which the vital organs occasion. Farmers frequently keep two cows on the food which barely keeps them alive, but which if given to one would be half returned in milk. A similar error is often committed in keeping a large animal instead of a small one. The pasturage may be such that a large animal has to graze constantly to obtain a scanty supply for its system, when a small animal, requiring proportionably less food, could lay by a surplus."

Mr. B. V. French, Mr. Lincoln, and other gentlemen, took part in the discussion, but the information presented by Mr. Howard we consider of the greatest importance to the general reader.

Mr. Riddle, from the Select Committee in the H. of R. has reported a bill regulating the trade in part between the United States and Peru. The Committee recommends the President to enter into negotiations with Peru for a mere liberal trade in guano. Failing in this, then the bill to go into effect. It provides that guano shall be admitted duty free at forty dollars per ton. Four per cent. when the price is below forty-seven dollars—ten per cent. when below fifty dollars, and sixty per cent. above fifty dollars per ton.

THE NATIONAL CATTLE SHOW.

At the National Cattle Show to be held at Springfield, Ohio, on the 25th, 26h and 27th of Sept. next, the following very liberal premiums are to be paid:

SWEEPSTAKE PREMIUMS.

Best Bull, and 5 Cows or heifers of one year or upwards, from any one State.	$500

DURHAM BULLS.

Best 3 year old and upwards,	$300
Second best 3 year old and upwards,	200
Third best 3 year old and upwards,	100
Best 2 year old and under 3 years,	200
Second best 2 year old and under 3 years,	150
Third best 2 years old and under 3 years,	75
Best 1 year old and under 2 years,	150
Second best one year old and under 2 years,	100
Third best 1 year old and under 2 years,	50
Best Durham bull calf,	50

DURHAM COWS.

Best 3 year old and upwards,	200
2d do 3 do do	150
3d do 3 do do	100
Best 2 do and under 3 years,	150
2d do 2 do do 3 do	100
3d do 3 do do 3 do	50
Best 1 do do 3 do	100
2d do 1 do do 2 do	75
3d do 1 do do 3 do	50
Best Heifer Calf,	50

AYRSHIRE BULLS.

Best 3 year old and upwards,	100
2d do 3 do do	75
Best 2 do and under 3,	80
2d do 2 do do 3,	60
Best 1 do do 2,	75
2d do 1 do do 2,	50

AYRSHIRE COWS.

Best 3 year old and upwards,	100
2d do 3 do do	75
Best 2 do and under 3,	75
2d do 2 do do 2,	50
Best 1 do do 2,	60
2d do 1 do do 2,	50

For Devons and Herefords, the same prizes are offered as for Ayrshires.

The recent extensive importations into Ohio and Kentucky, of the best Short-Horns to be procured abroad, most of which will probably be present at this exhibition, will undoubtedly render it, in regard to this breed at least, the most interesting one ever held in this country.

CHOICE OF SEED.

The following remarks of Sir *John Sinclair*, are very appropriate upon this subject:—

"Cultivators often commit very serious blunders in the choice of seed; yet by attention to this object, they might frequently add considerably to the quantity of the produce and to the intrinsic value of the crop."

"By some, the hazardous rule, of taking the worst grain for seed, has been recommended; but it is a much safer system unless in cases of real necessity to use none but what is fully ripened, for such seed is less affected by injurious local circumstances, or unfavorable seasons. The ripest seed may be obtained by *treading*, or slightly thrashing the sheaves."

"The shape of the seed merits attention, for though size or magnitude is generally owing to the soil in which it has been grown, yet it is likewise a sign of its ripeness. In regard to figure, much depends upon the climate, for warm and early situations produce sound grain; whereas a long figure denotes the reverse. Colour is a popular mark in some cases, but it is not itself of importance. It is prudent, however, to raise that sort which is most suitable to the market, in regard to color, and in other respects. Sometimes seed, apparently quite sound, is incapble of producing plants. This should be ascertained, by sowing a certain number, and seeeing how they spring."

"On the whole, though blighted grain will often vegetate, and though it is possible, that in rich soils, and in very favorable seasons, it may produce even an abundant harvest, yet the prudent farmer will not rely *upon the chance of such an event*, as a practice on which he ought to depend, more especially when his crops are sown in winter, or early in spring, and consequently are exposed to much severity of weather."

"Care also must be taken, that the seed has not suffered injury by being bruised, or having imperfect lobes, or broken husks, and that there is no risk of sterility from age."

"Where domestic seed is relied on, it is proper to change the seed from the heaviest, to the lighter parts of the farm, and *vice versa*, if there be much difference. On clay farms in general, domestic seed may be safely used for some time; but with a view to prevent degeneracy, it is an excellent practice, to select, from the growing crops, the ears which are the soonest ripe, and which are of the plumpest quality; by this means, those husbandmen who devote themselves in a peculiar manner to this object can not only supply themselves, but can always command a much higher price than others, by selling the grain raised upon their farms for seed, either among their neighbors, or other districts."

PORTABLE SOUP CAKES.—The following is a receipe for preparing these cakes:

Calves feet,	4
Leg of Beef,	12 pounds,
Knuckle of Veal,	4 "
Leg of Mutton,	10 "

These are to be boiled in a sufficient quantity of water, and the scum taken off as usual; after which the soup is to be separated from the meat by straining and pressure. The meat is then to be boiled a second time, in other water, and the two decoctions being added together, must be left to cool, in order that the fat may be exactly separated. The soup must then be clarified with five or six whites of eggs, and a sufficient quantity of common salt added. The liquor is then strained through flannel, and evaporated on the water—both to the consistence of a very thick paste; after which it is spread upon a very smooth stone, or marble slab, then cut into cakes, and dried in a stove until it becomes brittle. These cakes are kept in well closed jars. Aromatic herbs may be boiled with the meats to flavor. Cakes thus made will keep four or five years, and will be on hand on emergencies to form an extra dish, or will serve for travellers, as an ounce or so will make a respectable pot of soup, or, if need be, may be eaten without farther cooking, and will be found to be highly nutricious.

OFFICE OF STATE INSPECTOR OF GUANO,
No. 11 Exchange Building, Balt., Md.

For the information of the public, the undersigned is required by law to publish the following tables, exhibiting the marks which are now used by the Inspector to designate the quality of the different varieties of Guano imported into this State:

PERUVIAN GUANO.

All Guano marked "Peruvian," letter A., contains Ammonia and its elements, equal to from 15 to 18 per cent.

All Guano marked "Peruvian," letter B., contains Ammonia and its elements, equal to from 12½ to 15 per cent.

All Guano marked "Peruvian," letter C., contains Ammonia and its elements, equal to from 10 to 12½ per cent.

All Guano marked "Peruvian," letter D., contains Ammonia and its elements, equal to from 7 to 10 per cent.

MEXICAN GUANO.

All Guano marked "Mexican," letter A., contains Phosphoric Acid equal to from 45 to 55 per cent. of Bone Phosphate of Lime.

All Guano marked "Mexican," letter B., contains Phosphoric Acid equal to from 35 to 45 per cent.

All Guano marked "Mexican," letter C., contains Phosphoric Acid equal to from 25 to 35 per cent.

WHITE MEXICAN GUANO.

All Guano marked "White Mexican," letter A. contains Phosphoric Acid equal to from 75 to 85 per cent. of Bone Phosphate of Lime.

All Guano marked "White Mexican," letter B. contains Phosphoric Acid equal to from 55 to 75 per cent.

All Guano marked "White Mexican," letter C. contains Phosphoric Acid equal to from 55 to 65 per cent.

AFRICAN GUANO.

All Guano marked "African," letter A., will contain Ammonia and its elements, equal to 2 per cent., and Phosphoric Acid equal to 35 per cent. and upwards of Bone Phosphate of Lime.

MEXICAN GUANO.

In making a scale to indicate the quality of Mexican Guano, (the chief value of which as a fertilizer depends upon the per centum of Phosphoric Acid it contains,) I have so constructed it, that the purchaser may readily ascertain its commercial value, as compared with Bone Phosphate of Lime, estimating the Phosphoric Acid as *equal* to the per centum of that combination of Lime and phosphoric Acid, as indicated by the letter in the table. Unadulterated "Ground Bones" or Bone Dust, will average about 50 per ct. Bone Phos. Lime. In adopting a standard for the best quality of the ordinary Mexican Guano, I have, after much investigation and examination of all the cargoes imported since the 1st of May, 1854, together with data furnished me by Doctors Higgins, Piggot and Bickell, who have examined several cargoes imported during the last year or two, adopted the above table, fixing the maximum per cent. of Phosphoric Acid as equal to 55 per cent. of Bone Phosphate of Lime. I have seen no lot exceeding 55 per cent., on the contrary several have fallen far below it. The quality of each lot then will be indicated by the letters as arranged in the table.

WHITE MEXICAN GUANO.

An article has been recently imported from the Carribean Sea in the form of irregular, friable white lumps, which when ground has the appearance of a white powder slightly tinged with yellow. Upon analysis it is found to contain a large quantity of Phosphoric Acid, and all the constituents of the ordinary Mexican Guano. From its chemical composition as thus ascertained,—its physical appearance—the locality from which it is obtained, and the character of the deposite as learned from those who have seen it, I have concluded, that it is an old deposite of Guano, brought into its present condition by long exposure to the atmosphere, and the bleaching effects of the alternate rain and sun of the climate from whence it is obtained.

As this article contains a very large per centage of Phosphoric Acid, as will be seen by the analysis below, I could not classify it with the ordinary Mexican Guano, and have therefore designated it "White Mexican Guano," and arranged a separate table to indicate its quality. This becomes the more necessary, as upon examination of three different cargoes, I have found a difference in quality to exist, though they yield a much larger quantity of Phosphoric Acid than the best ordinary Mexican.

Analysis of average samples of this article taken from the ship "Junius:"

Water,	4.26
Organic matter,	6.39
Phosphoric Acid,	37.08
Lime,	45.48
Per Oxide of Iron,	0.12
Carbonic Acid, Alkalies, traces of sand and Magnesia,	6.67
	100—

It will require 80.34 per ct. of Bone Phosphate of Lime to yield 37.08 per ct. of Phosphoric Acid, the quantity obtained from these average samples.

The lot imported in ship "Junius" contains more Phosphoric Acid than subsequent lots, and I have accordingly taken it as the standard for this article and so arranged the table. The quality then will be indicated by the letters as placed in the scale.

AFRICAN GUANO.

In arranging the table for African Guano, I have taken as the standard a cargo recently imported from Saldanha Bay, it being the only lot now in market. Its quality is indicated by the letter as adopted in the scale for African.

Since publishing the above tables I have inspected two small cargoes of Mexican Guano, which averaged about 58 per cent. of Bone Phosphate of Lime, being 3 per cent. more than the standard adopted, as will be observed by reference to the table. Being but two lots out of a large number, some of which yielded but 38 per ct., I regard them as exceptions, and rather than change the whole table marked them double AA, to indicate that the lots so marked contain Phosphoric Acid equal to more than 55 per cent. of Bone Phosphate of Lime. Unless the arrival of such lots of superior quality shall be sufficiently numerous to require the standard for Mexican to be changed, they will be marked as above AA.

In publishing the annexed tables for the gudiance of purchasers of Guano, the undersigned deems it proper to state that the letters used in designating the quality of ordinary Mexican, White Mexican

Guano, indicate the quality affixed to them in the table, in such Guano only, as bears his official signature, which will be found in large letters upon each package. Purchasers who rely upon the marks used by him, as published in the tables, will be careful to observe the signature also, which invariably accompanies the mark.

He deems it proper, also, to state that purchasers of Guano should be careful to observe that the article purchased, whether Peruvian, Mexican, African, or other variety, is in good order and condition at the time it is sold them, otherwise the inspection mark is no guarantee that they are securing the article they purchase, not more so than the inspection brand "Family," upon a barrel of flour, subsequently damaged by water or other cause, is certain guarantee that the flour contained in said barrel is the article indicated by the inspection mark. These remarks apply particularly to "Peruvian Guano," as it is put in bags, and from its composition is more easily damaged by rain or other causes than Mexican or African. All Peruvian Guano marked A or B invariably comes out of the vessels of the quality indicated by the letters, *dry and in good condition*. That damaged by water, from leakage or otherwise, is carefully separated and placed in bags marked D, not only to indicate its inferiority, but that it is damaged.

It frequently happens that dealers who make their purchases from the agents, receive orders upon vessels discharging at the time, and have their Guano placed upon the wharves, where it is sometimes allowed to remain for several days, exposed to heavy showers of rain and the scorching sun, which necessarily damage it, and make it inferior to the quality indicated by the inspection mark—when, if it had been properly stored or secured from exposure, the latter would have been a guarantee of its quality.

Peruvian Guano, if *kept dry*, may be preserved in its normal condition for a long time, but the presence of water induces decomposition, ammonia is formed, much of which from its volatile nature rapidly escapes, and the Guano is correspondingly drepreciated in value. ☞The strong ammoniacal smell of some Guano is not an unmistakeable evidence of its superiority, as is sometimes supposed—on the contrary, it may furnish presumptive evidence that decomposition is going on, and that the Guano is rapidly parting with some of its most valuable constituents.☜ It is a question to be considered by those interested, whether by the addition of water to wet it previous to sowing, decomposition is not so much facilitated that large portions of its volatile elements are eliminated before the plant is sufficiently advanced to appropriate them by assimilation. My attention was particularly called to this matter, a short time since, by Gen'l. Gaither, of Montgomery county, who had observed the great difference in the advancement and appearance of a portion of a field of wheat on which dry Guano had been sowed, and the corresponding portion upon which a like quantity had been sowed previously wetted with water. The grain upon which the dry had been sowed was further advanced, and of better color, and contrasted with the other as strongly as though no Guano had been used upon it. I could account for the difference of effect, upon no other theory than that hinted above, viz: the presence of water producing early decomposition, the decomposition taking place too rapidly, and much of the volatile elements of the Guano being lost before the plant is ready to appropriate them by assimilation. I am not sufficiently informed of the experience or opinions of agriculturists as to the advantages or propriety of wetting Peruvian Guano previously to its being sowed, but am satisfied that with a knowledge of its elementary constituents such a practice is at variance with well established chemical principles. It is hoped that these hints, loosely thrown together, may induce those interested to ascertain by experiment the true answer to the query proposed.

Ordinary Mexican Guano is more or less damp, which condition does not injure its most important fertilizing principle.

Farmers of the State, and the adjoining States, who desire information from the undersigned respecting any matters pertaining to his office, will address him by letter or be pleased to call at his office in Exchange Building, Baltimore, where he will be happy to see them, and cheerfully give them such facilities and information in the selection and purchase of Guano as he may possess.

WM. S. REESE,
aug 1-1t *State Inspector of Guano.*

BALTIMORE MARKET—July 31.

[The Steamer Niagara has just arrived, bringing advices from Europe, of a decline in breadstuffs; no cause is assigned in the telegraphic despatches. Last sales before the steamer's arrival, were, for good to ord. red wheat, $1.40a155; good to choice do. $1.55a1.65; ordinary to good whites, $1.50a 1.60; good to choice do. $1.60a1.72; prime parcels of white, suitable for family flour, at $1.75, 1.80 and 1.85—there are a great many inferior parcels of wheat, which sell from 10 to 30 cents below the above rates. Corn is dull; white, 68a73c; yellow 75; Rye, dull; Oats, new Pa. 40c.; old do. 42; Md. and Va. 35a42—inferior oats sold at much lower prices. Rice, prime, $4.44 per 100 lbs.; inferior $3.50a3.75: Sugar, inquiry good, but holders ask prices so high as to prevent operations. Wool, unwashed, 17a18c., fine fleece, 34½c.; Whiskey, bbls. 31c.; hhds. 30c.—demand good, with an upward tendency. Beef Cattle, supply large, and prices on the decline—sales at $3a4 on the hoof, equal to $6a7.75 nett, and averaging $3.37½ gross. Hogs, supply large, sales at $5.50a6 per 100 lbs.—Sheep, $2a3.25 per head; Flour, $8.25a8.31 for Howard St., and City Mills, $7.50a7.75.

The receipts of grain have been very large during the last week or two, which, with the advices from Europe, has caused a decided decline in grain; but we think it will soon rally again. Clover Seed $5a5.25, Timothy, 3.50a3.75—Hay, baled, new and old, $17a20; in wagons, $16a17 per ton—Spirits Turpentine, 48a50c. per gallon; Tar, $3.87 and 4, Pitch, $2.37a2.50; Com. Rosin 1,70; No. 2, $2, and No. 1, $3a4 per bbl.—Varnish 22a23 cts. per gall.—Plaster, lump, 3.37, ground $1.25a1.37½ per bbl.—Tobacco, demand continues good, for Md. and Ohio, but receipts are light—Com. to good ord. Md. 5.25a6, mid 6a6.25, good to fine brown 7a9—from the upper counties, tips or tails $9, second 5.50 a 7; middling, 6a8; spangled $10a 12, and fine yellow 10a15—Ohio red for France 6.25a7.50; green and inferior $5.50a5.75; sound to com. good red 5.75a6; red and yellow, 6a7.50, and fine spangled to fine yellow $8a15—Ky. ord. 5.50a 6, and better qualities $7a8.

Improved Super-Phosphate of Lime.

THE subscriber is now prepared to furnish this admirable manure in any quantity. It is made after a recipe published by the Editor of the *Working Farmer*, and it has been used by himself and others, with the most marked advantages, for the last five years. The use of Bones for manure has been long known to the community, and their importation into England has reached the immense sum of Millions of Dollars per annum. These are chiefly used by chartered companies of the City of London, and elsewhere, for the manufacture of Super phosphate of Lime, made by dissolving bones in sulphuric acid—and five bushels of the Super-phosphate of Lime so prepared, has been long known to equal in effect fifty bushels of finely ground bones.

Until the present time, the manufacture of super-phosphate of lime for sale, has not been entered into in this country, and the method by which the article is manufactured now offered by the subscriber, produces an article every way superior to the English super-phosphate; for in addition to the phosphoric acid and sulphuric acid usual in the manufacture of super-phosphate of lime, it contains such proportion of Peruvian Guano as is found necessary to furnish the other constituents of plants not contained in bones, and to these is added a liberal quantity of sulphate of ammonia, made from the waste liquor of the gas houses.

Arrangements made by the manufacturers enable them to procure these materials at the cheapest possible rates, and hence they can offer a pure article, composed entirely of phosphate of lime, sulphuric acid, Peruvian guano and sulphate of ammonia, at a price equal to that of Peruvian guano, but by the use of the farmer it is quite double its value. By such treatment the ammonia is no longer volatile, and hence it is more lasting than Peruvian guano. The phosphate of lime is rendered soluble, and therefore is at once valuable for plants, while the potash, uric acid, and other constituents of guano bear a more just proportion to the requirements of plants, than as they exist in the Peruvian guano alone. Five hundred pounds of the Improved Super phosphate of Lime have been found by frequent experiment, to fully equal in value thirty half cords of well rotted stable manure, and from not being volatile, lasts in the soil until consumed by the plants. The cost of this quantity is not so great as would be the expense of cartage and handling of thirty half cords of stable manure given to the farmer, at two miles from his gate.

The convenience of this manure consists in its small bulk, and consequent ease of handling. It may be used before or after the planting of the crop, for even when applied as a top-dressing it cannot be lost by evaporation, as none of its constituents are volatile. A single hundred pounds applied as a top dressing to meadows, will increase the yield more than a ton per acre. As a drill manure it is unequalled, for unlike the prepared guano it does not destroy seed, nor interfere with early growth. It may be applied in the hills during the cultivation of corn, potatoes, and other crops. When crops have been previously manured in the usual way, and found to be of sluggish growth, it may be augmented by the use of this manure. To the Horticulturist it is invaluable, as it may be applied to fruit trees at any season of the year. More than a thousand bushels of Ruta Baga Turnips have been raised to the acre by the application of 100 pounds of the Improved Super-phosphate of lime—eight hundred bushels of long Orange Carrot, and eleven hundred bushels of White Belgian Carrot, have been raised to the acre by the application of this manure. For garden crops it is all that is necessary for success. Its superiority and economy, as compared with guano, is very great. Comparative experiments have been made with this manure alongside of all other known fertilizers, and invariably with results favorable to the Improved Super-phosphate of lime. By adding this preparation in ordinary compost heaps, the farmer is enabled to supply such deficiencies as are mostly to be met with in soils. Throughout the Atlantic States the soils have become nearly denuded of phosphoric acid by the export of Bones to Europe, and by the export of crops containing this requirement; thus we find the wheat crops of New York, Ohio, and other States, less than half what they were per acre thirty years since. The application of the manure now offered renews the ability of these soils to raise Wheat. The tobacco lands of Virginia may be at once rendered fertile by this application; and to the dairyman it may prove an entire desideratum. Phosphate of lime passes in milk in large quantities, and therefore for continual pasturage, the fields of our dairy farms require additions of this material. They also require the stimulating effects of ammonia to enable the plants to make use of phosphate of lime, and the same quantity of grass with this amendment, will be found to enable cows to give a larger amount of milk than when fed on grasses from soils not replete with phosphate of lime. Twelve thousand late Bergen cabbages have been raised from an acre manured with five cwt. of the Improved Super-phosphate of Lime. The keeping properties of vegetables raised with this and similar manures, are much greater than when raised from putrescent manures alone. For sandy soils, which from their free character cannot retain manures of a volatile character, this preparation will be found efficient, as it cannot be parted with by evaporation. Its superiority for garden use cannot be doubted, as it will not engender weeds nor insects.—For bringing sluggish land into immediate heat, it surpasses stable manures, as no time need necessarily transpire to render its constituents available to plants; they are at once ready for its use, and in an unobjectionable form. When soils are prepared with this amendment, they will retain all the ammonia received from the atmosphere by dews and rains, it being immediately converted into sulphate of ammonia, and therefore no longer volatile. It will be furnished to consumers by all the principal Agricultural Warehouses in the United States, and may be had in large quantities of the Subscriber, who is General Agent for the manufacturers.

Arrangements have been made with Professor James J. Mapes to superintend its manufacture, until those engaged at the factory shall be competent to conduct it without his assistance. His directions as to the relative proportions of materials used, will be strictly followed, and purchasers may depend confidently upon its always remaining of uniform quality, and of its containing nothing but the ingredients before named. Each importation of guano will be accurately tested, and the quantity used will compensate for any differences in quality that may exist. The sulphuric acid will be of uniform strength, and the phosphate of lime being invariably heated to redness before use, will not lead to error by the presence of moisture, or other accidental impurities.

The improved Super phosphate of lime will be delivered in bags of 160 pounds each, and parties remitting will please order accordingly.

For sale in Baltimore, at $52 per ton, which includes cost of transporting from New York. N. E. BERRY, Agent for manufacturers, No. 50 Lombard St. aug 1-1t

REMOVAL.

ON THE FIRST OF JULY, 1854, WE REMOVED TO OUR

New Agricultural Implement, Seed & Machine Store,

IN EXCHANGE PLACE,

Where we have secured one of the largest and most commodious Warehouses in the city.

The increase of trade has made it necessary that we should seek a place better adapted to our business, and we have selected the above as being more central, and we trust, more convenient for our customers. In addition to the main warehouse, we are erecting a large storehouse in the rear, which, for convenience, we think, cannot be surpassed in this country.

We are now receiving a large stock of new Implements, Machines, &c, at the New Store, where we shall be happy to see our customers when they visit Baltimore. Orders by mail will be promptly attended to by addressing

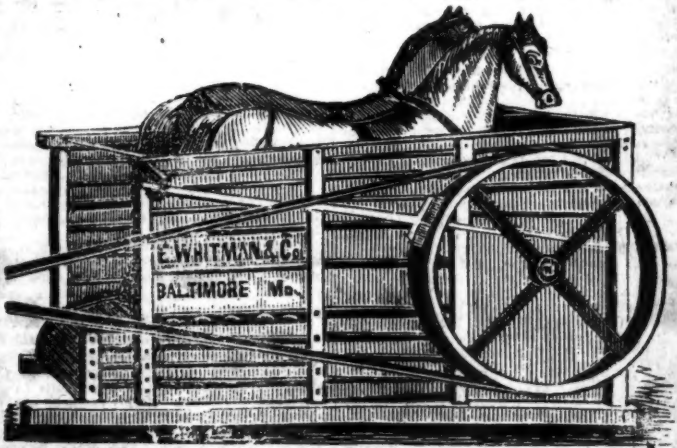
E. WHITMAN & CO.,

E. WHITMAN, } No. 63 EXCHANGE PLACE, BALTIMORE, Md.
E. W. ROBINSON. }

BALTIMORE, July 1st, 1854.

E. WHITMAN & CO'S. PREMIUM WROUGHT IRON RAILWAY

Horse Power and Threshing Machine.

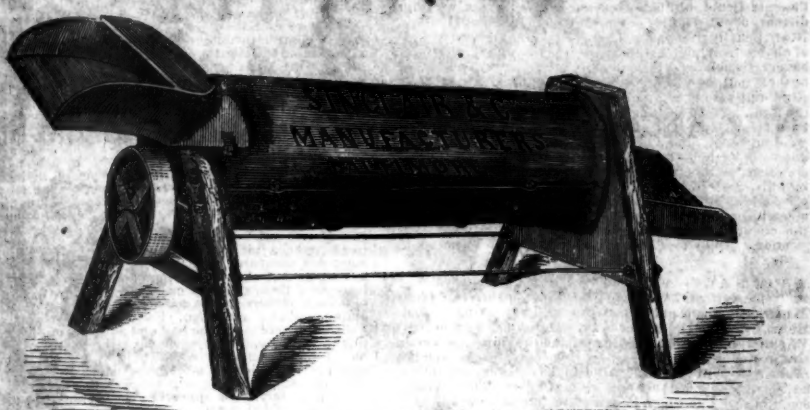


The great success that has attended this machine the past ten years has caused men without principle or genius, to attempt an imitation of it, and Farmers and Dealers have been deceived and disappointed by the purchase of spurious machines, supposing they were the same as ours. We now wish it understood by all who intend to purchase this machine, that besides ourselves, there is *not a man* in the United States who manufactures our Wrought Iron Railway Horse-power and Thresher. We have been engaged in the manufacture of this machine for more than ten years, without the slightest change of principle, during which time scores of Railway Powers have been introduced by the side of ours, and have been tried, condemned and abandoned as being worthless. One evidence of the superiority of our Railway Power over all others, is the fact that some manufacturers who ridiculed our Railway Power a few years ago, are now trying to imitate it. The public will be their own judges of how much confidence should be placed in the judgment and honesty of such people.

For the year 1854, and until further notice the prices will be as follows, viz:

Best Wrought Iron Double Railway Horse-power,	$ 115 00
Best 24 inch Iron Cylinder Thrasher, including Wrenches,	60 00
Straw Carrier,	15 00
Band,	10 00
(5 per cent. will be deducted from the above prices, if paid for on delivery.)	$ 200 00

Reading's Patent Corn Sheller.



READING'S CORN SHELLER is of recent invention, and the most powerful and simple machine of the kind we have noticed in this country. They are capable of shelling and cleaning 1,500 and 2,000 bushels of corn per day, and by the principle of construction the corn is shelled without breaking the grains, and all prepared by the process ready for market, with the greatest dispatch. PRICE, for machine as per figure, which separates the cob from the corn, $45. Price for do. with Fan attached, which separates corn and chaff, and in prime order for market, $55.

R. SINCLAIR, Jr. & CO.
58, 60 AND 62, LIGHT STREET, BALTIMORE.

Aug. 1

Ault's English Garden Seeds.

JUST received by Steamers Via. New York, our usual supply of first rate Cabbage seed, consisting of Early and Large York, Bullocks heart, Flat Dutch, Savory, Cauliflowers, &c. &c., also Skirving's Ruta Baga, and Yellow Hybrid, White and Red-top Flat, Norfolk Turnip seed, also Cucumber, Spinnage, and Kale seed, all of which are of the same superior quality, as those heretofore sold by us. Wholesale and retail.

SAMUEL AULT & SON,
aug 1-2 Corner Calvert & Water Sts. Balt. Md.

JAMES RIVER LAND FOR SALE.—By authority of the last will and testament of Mr. Thos. Wynne, deceased, I offer for sale the Farm on which he lately resided, lying on James River,, in James City County, Va., and known as the "GROVE." This tract contains about 1200 acres of land, of which about 400 are cleared and in a high state of cultivation, and the residue heavily timbered with pine and oak, lying from one to two miles from the river—eight or ten thousand cords of pine may be cut, leaving an amply sufficient quantity for the purposes of the farm. In addition to this there is a large quantity of locust timber, within one hundred yards to a half mile of the river. The river bank for a mile and a-half consists of an inexhaustible bed of marl, convenient for shipping, from the sale of which the late owner made considerable profit, and for which there is still a demand; as also other beds of marl, in large quantities, and convenient to all parts of the farm. The whole of the open land has been marled once, and about one-half of it twice. The situation of the farm is such as to make it susceptible of the *very highest* state of improvement, and it now produces heavy crops of corn, wheat, clover, oats, &c. On the farm is an orchard of young fruit trees of every variety, and of the very best selections. On the river, in bold, deep water, is a short and wide wharf, convenient for shipping the produce of the farm, &c. and where two steamers touch daily, running between Richmond and Norfolk, [it being to either place only a trip of a few hours.] The late owner has been running a line of stages in connection with these steamers, from this ("Grove") wharf to Williamsburg, a distance of seven miles, and to Yorktown, a distance of nine miles, and found the business very profitable. A contract now in force, forbidding the running of stages to Williamsburg, will expire by its limitation in about 18 months, when the business may be again resumed, if desirable. The residence is situated immediately on the river, commanding a magnificent view, and is a very large and substantially built brick house, having four large rooms below and above, together with a large basement and attic.

The out houses are two brick kitchens on either side of the dwelling, a brick store-house for farming implements, &c., new framed carriage house, smoke-house, dairy, poultry houses, and commodious barns and stable. Within a half mile of the residence is a house for the overseer, and comfortable negro quarters—all new framed houses of the very best material, with brick chimneys.

To any one wishing to make a profitable investment of capital in real property, this sale really offers inducements but seldom met with.

This property, together with considerable improved stock, farming utensils, crops, &c. &c. will be sold publicly to the highest bidder, on the premises, on TUESDAY, the 7th November next, the sale to continue from day to day until finished.

TERMS, which will be liberal, made known on the day of sale; and in the meantime, persons desiring information will be promptly answered by addressing the subscriber, at Yorktown, Va. and are invited to visit and view the premises.

aug 1-ts ROBERT E. WYNNE, Executor.

To Landed Proprietors.

THE undersigned, in acknowledging the numerous favors conferred upon him by his kind patrons, takes this opportunity of informing his friends and the public generally, that he is prepared to survey and subdivide Lands, lay off cities, towns, villages, cemeteries, &c.—to do any Levelling, make Profile, Grade and make Roads, and all other business in his line, will meet with prompt attention and dispatch. WM. SIDES, 22 Second St. Balto.

REFERENCE.—Chas. B. Calvert, Esq. President of the Md. State Agricultural Society, Bladensburg, Md.; Robert Purviance, Jr. Esq.; Henry Mankin, Esq. Baltimore; Geo. Gelback, Esq. Baltimore; Charles Shipley, Esq. Baltimore; Dr. T. H. Buckler; Messrs. Jno. and Isaac Jewett. ag1-3t*

Reaping Machines.

THE farmers throughout the country have become aware of the great importance of Reaping, and Mowing Machines, to secure their harvests. The high price of labor, and the scarcity of hands at harvest time will induce many to supply themselves with these machines before another harvest.

The subscriber would respectfully suggest to such, that they be careful to inquire into the general character of the several different machines, now before the public. It may not be generally known, that nearly all of these machines embrace an original invention, which was put in successful operation by me twenty-one years ago. Although there are various modifications in other particulars, yet it is to my invention that all of them are indebted for any merit they have, as Reaping and Mowing Machines. Great efforts have been made to flood the country with these spurious machines. In order to sell their machines, these interested parties have not hesitated to denounce Hussey as behind the times; concealing the fact, that if Hussey had not been ahead of the times, they themselves would have had no such Reapers to sell. A little inquiry into the operations of the different machines, in the harvest just passed, will satisfy the farmer how far their extravagant promises have been fulfilled, and of the real merits of these spurious machines, compared with those of my own make. In making a comparison it should be remembered, that it is not fair to select one of these spurious machines, made with a knowledge of my late improvements, to compare with one of my own machines made ten years ago. Farmers now have the means of knowing where to get the best and most durable machine, and if they are hereafter deceived by misrepresentation, as they have been heretofore, it will be their own fault. Let the general report be relied on, more than the report of isolated cases. The subscriber would remind farmers, that he is prepared for building an increased number for next year; and that he had at the close of harvest not a machine left on hand—at his own shop, or in the hands of an agent: on the contrary such was the demand, that his agents complained they could not get half enough from him to supply their customers. This state of things will be guarded against another year. One effectual way of guarding against disappointment, will be for the farmer, who has made up his mind what to do, to do it at once, by sending in his name at an early day. Great pains will be taken to make the Machines efficient, and durable, without any increase of prices.

aug 1-tf OBED HUSSEY.

Grapes and Strawberries.

THE Culture of the Grape, and Wine making, by Robert Buchanan; with an appendix containing directions for the cultivation of the Strawberry, by N. Longworth, of Cincinnati. A few copies have been received of this work, noticed in the American Farmer of June—those at whose instance we have ordered them, and others, wishing to obtain a copy, can now be supplied—Price 75 cts.—Apply at the office of American Farmer. aug 1-1t

OVERSEER WANTED.—A gentleman near Knoxville, Tenn. wishes to employ an Overseer to take charge of his farm. He raises corn, wheat, oats and grass—has 15 to 17 hands. The crops are mostly fed to stock, and the party must be capable of managing it, and buying and selling stock, as the owner's duties call him away from the farm. Apply to S. SANDS, Farmer Office. aug. 1-1t

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